Madison Paper Industries
Somerset County
Madison, Maine
A-427-70-C-R/A

Departmental
Findings of Fact and Order
Part 70 Air Emission License
Renewal/Amendment

FINDINGS OF FACT

After review of the Part 70 License renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 Maine Revised Statutes Annotated (M.R.S.A.), §344 and §590, the Maine Department of Environmental Protection (Department) finds the following facts:

I. REGISTRATION

A. Introduction

FACILITY	Madison Paper Industries
LICENSE TYPE	Part 70 License Renewal, Part 70 Significant License Modification
NAICS CODES	322121 Paper Mills
NATURE OF BUSINESS	Mechanical Pulp and Supercalendered Paper Production Facility
FACILITY LOCATION	Main Street, Madison, Maine

Madison Paper Industries (Madison) owns and operates a mechanical pulp and supercalendered production facility consisting of boilers, mechanical pulping equipment, a paper machine, emergency generators, storage tanks and other process air emission sources.

Madison has the potential to emit more than 100 tons per year (TPY) of particulate matter (PM), particulate matter under 10 micrometers (PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_X), and carbon monoxide (CO), and 100,000 tons of carbon dioxide equivalent (CO_2e); therefore, the source is a major source for criteria pollutants. Madison has the potential to emit more than 10 TPY of a single hazardous air pollutant (HAP) or more than 25 TPY of combined HAP; therefore, the facility is a major source for HAP emissions.

B. Emission Equipment

The following emission units are addressed by this Part 70 License:

Boilers

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Max. Firing Rate	Fuel Type, % sulfur	Manf. Date	Install. Date	Stack #
Boiler 4	119	793.3 gal/hr	No. 6 fuel oil (2% S), distillate fuel (0.5% S), specification waste oil	1967	1967	1
	124.8	122,353 scf/hr	Natural gas			
Boiler 6	99.6	664 gal/hr	No. 6 fuel oil (2% S), distillate fuel (0.5% S), specification waste oil	1980	1981	1
		96,699 scf/hr	Natural gas			
Boiler 7	117	780.0 gal/hr	No. 6 fuel oil (0.5% S), distillate fuel (0.5% S)	1991	1991	1
	122.7	120,294 scf/hr	Natural gas			
Temporary Package Boiler	90	643 gal/hr	Distillate fuel, 0.5% S	N/A	N/A	N/A

Generators

Equipment	Max. Heat Input Capacity (MMBtu/hr)	Max. Firing Rate (gal/hr)	Power Output (HP)	Fuel Type, % sulfur	Manf. Date	Install. Date	Stack #
Boiler House Fire Pump	1.6	11.7	215 HP	Distillate fuel, 0.0015% S	1981	1981	N/A
Groundwood Mill Fire Pump	1.9	14.0	255 HP	Distillate fuel, 0.0015% S	1981	1981	N/A

Process Equipment

Equipment	Production Rate/Capacity	Pollution Control Equipment	Stack #
Groundwood Process (6 grinders, 6 shredders, 2 un-screened stock tanks, 2 refiner vents, heat recovery system, associated equipment)	360 tons/day of groundwood fiber	Heat recovery system	Fugitive
Paper Machine #3	750 tons/day of paper	None	Fugitive
PCC Plant (2 Carbonators, tanks, lime silo)	130 tons/day of lime	Two-stage demisters	1
Parts Washers	< 20 gallons each	None	N/A
No. 6 Fuel Oil Tanks (3)	50,000 gallons each	Fixed Roof	Fugitive

Madison has additional insignificant activities which do not need to be listed in the emission equipment tables above. The list of insignificant activities can be found in the Part 70 license application and in Appendix B of *Part 70 Air Emission License Regulations*, 06-096 CMR 140 (as amended).

C. Application Classification

The application for Madison is for the renewal of their existing Part 70 Air License (A-427-70-A-I, issued September 25, 2003) and incorporation of subsequent Part 70 amendments. This licensing action also includes the reduction in the nitrogen oxide (NO_X) emission limit when firing fuel oil in Boilers 4 and 6, the reduction in NO_X emissions testing on Boilers 4 and 6, the reduction in PM emission testing on Boilers 4, 6, and 7 due to the firing of natural gas as the primary fuel, and clarification that the steam production limits are only applicable when firing #6 fuel oil.

Additionally, pursuant to Section 2(A) of 06-096 CMR 140, Madison has requested incorporation into the Part 70 Air Emission License the relevant terms and conditions of the 06-096 CMR 115 New Source Review (NSR) licenses issued to Madison, including the following NSR licenses:

- A-427-77-1-A, issued January 30, 2008;
- A-427-77-2-A, issued September 1, 2011;
- A-427-77-4-A, issued January 27, 2012; and
- A-427-77-5-A, issued April 1, 2014.

Previous NSR license A-427-77-3-M (issued December 27, 2011) temporarily allowed for an increase in the NO_X emission limit while firing natural gas in Boiler 7. The increase was due to an underestimation in the initially licensed emission factor in A-427-77-2-A (issued September 1, 2011), as was shown by the operational data when the switchover from oil to natural gas occurred in the boiler. Since then, NSR license A-427-77-4-A (issued January 27, 2012) permanently changed the NO_X emission limits for both Boilers 4 and 7 when firing natural gas. Therefore, no request is required to incorporate license A-427-77-3-M into this Part 70 Air Emission License.

NSR license A-427-77-6-A (issued June 3, 2014) allowed for the addition of the Slashing Generator to the Groundwood Mill to power a wood slashing unit. However, after operation and review of the wood slashing unit's required power demands, Madison determined it was more economical to connect the wood slashing unit to the electricity grid and has since removed the Slashing Generator. Therefore, it is not required to incorporate license A-427-77-6-A into this Part 70 Air Emission License.

The application for Madison does not include the licensing of increased emissions; however, it does include a reduction in the No. 6 fuel oil NO_X emission limit for Boilers 4 and 6, a reduction in frequency of NO_X testing on Boilers 4 and 6, which is in accordance with the NO_X RACT addressed in license A-427-71-D-A (issued January 10, 1996), and a reduction in frequency of PM testing on Boilers 4, 6, and 7 due to the firing of natural gas. The reduction in NO_X testing is from once per year to only a year in which the No. 6 fuel oil combustion rate is 25% or more of the respective boiler's annual heat input for all fuels in any 12 month rolling total period. The reduction in PM testing is from 2 years for Boiler 6 and from 5 years in Boilers 4 and 7 to only required when the fuel oil combustion rate is 30% or more of the individual boiler's annual heat input from all fuels in any 12 month rolling total period. The reduction/clarification in testing is considered a relaxation of testing and reporting license terms or conditions and is thereby determined to be a Part 70 Significant License Modification.

Therefore, the license application is considered to be a Part 70 License renewal with the incorporation of NSR requirements and a Part 70 Significant License Modification and will be processed as such under *Part 70 Air Emission License Regulations*, 06-096 Code of Maine Rules (CMR) 140 (as amended).

D. Facility Description

Madison manufactures pulp and paper. Pulp is produced at the facility's Groundwood Mill through pressurized operations. Logs are first delivered to the facility by truck and then stored, sawn and debarked. The wood then enters the facility and is processed under heat and pressure using grinders and shredders to make the pulp.

Paper is produced at the facility using both the pulp generated from the Groundwood Mill and pulp purchased from outside facilities. The pulp is used on Paper Machine #3 to produce supercalendard paper. Paper Machine #3 does not apply any coatings to the paper, but rather uses steam and friction to generate the smooth, glossy finish to the supercalendered paper.

Madison produces steam for the facilities processes, building heat, and electrical generation using Boilers 4, 6, and 7. The boilers are capable of firing fuel oil, distillate fuel, and natural gas, and all three units exhaust through a common stack. A portion of the boilers' exhaust is routed through a Precipitated Calcium Carbonate (PCC) Plant located on site but which is owned and operated by Specialty Minerals. After passing through the PCC Plant, the exhaust is vented up the common stack through a separate flue.

E. General Facility Requirements

Madison is subject to the following state and federal regulations listed below, in addition to the regulations listed for specific units as described further in this license.

CITATION	REQUIREMENT TITLE
06-096 CMR 101	Visible Emissions
06-096 CMR 102	Open Burning
06-096 CMR 103	Fuel Burning Equipment Particulate Emission Standard
06-096 CMR 105	General Process Source Particulate Emission Standard
06-096 CMR 106	Low Sulfur Fuel
06-096 CMR 109	Emergency Episode Regulation
06-096 CMR 110	Ambient Air Quality Standard
06-096 CMR 116	Prohibited Dispersion Techniques
06-096 CMR 117	Source Surveillance
06-096 CMR 130	Solvent Degreasers (if use >5% VOC solvent)
06-096 CMR 137	Emission Statements
06-096 CMR 138	Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides
06-096 CMR 140	Part 70 Air Emission License Regulations
06-096 CMR 143	New Source Performance Standards
06-096 CMR 144	National Emission Standards for Hazardous Air Pollutants (NESHAP)
40 CFR Part 60, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
40 CFR Part 63, Subpart S	National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry
40 CFR Part 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
40 CFR Part 70	State Operating Permit Programs
40 CFR Part 98	Mandatory Greenhouse Gas Reporting

Notes: CMR = Code of Maine Regulations
CFR = Code of Federal Regulations

F. Units of Measurement

The following units of measurement and their corresponding abbreviated symbols are used in this license:

gal/hr	gallons per hour
gal/yr	gallons per year
HP	Horsepower
hr	Hour
hr/yr	hours per year
kPa	kilopascals
lb/gal	pounds per gallon
lb/hr	pounds per hour
lb/MMBtu	pounds per million British Thermal Units
lb/scf	pounds per standard cubic feet
lb/ton	pounds per ton
m^3	cubic meters
min	minutes
MMBtu/hr	million British Thermal Units per hour
MMBtu/yr	million British Thermal Units per year
mmHg	millimeters of mercury
MMscf	million standard cubic feet
ppm	parts per million
scf	standard cubic feet
scf/hr	standard cubic feet per hour
scf/yr	standard cubic feet per year
tons/day	tons per day
tons/yr	tons per year
TPY	tons per year

II. BEST PRACTICAL TREATMENT (BPT) AND EMISSION STANDARDS

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. NO_X RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Nitrogen Oxides, 06-096 CMR 138 (as amended) is applicable to sources that have the potential to emit quantities of NO_X equal to or greater than 100 tons/year. Amendment A-427-71-D-A, issued to the facility on January 10, 1996, addressed NO_X RACT requirements. NO_X RACT requirements of 06-096 CMR 138 apply to the following emission units at the Madison facility: Boilers 4, 6 and 7, and the emergency diesel units. The NO_X RACT requirements for these units are incorporated into this renewal.

1. Boilers 4 and 6

   In license A-427-71-D-A (issued January 10, 1996), NO_X RACT for Boilers 4 and 6 was determined to be the installation of low NO_X burners and for the facility to perform NO_X emission stack testing to determine an appropriate NO_X lb/MMBtu emission limit while firing No. 6 fuel oil by May 31, 1996 and every year thereafter. In addition, after the second consecutive annual test, Madison was to submit a proposed NO_X emission limit that upon review and acceptance by the Department, would be incorporated into the license. In addition, Madison was allowed the option to reduce the frequency of stack testing upon successful compliance demonstration of two consecutive annual stack tests.

   After the installation of the low NO_X burners, Boilers 4 and 6 were tested for NO_X in November of 1995 and 1996 and Madison proposed to the Department a NO_X emission limit of 0.43 lb/MMBtu in a letter dated June 23, 1997 as well as requested that annual testing be reduced to once every other year. In a response letter from the Department dated July 29, 1997, the Department reviewed the proposed annual emission limit and decided that the NO_X lb/MMBtu number could be further reduced based on information obtained since the NO_X RACT went into effect. The letter from the Department requested that Madison continue to strive to reduce NO_X emissions even more from their proposed 0.43 lb/MMBtu emission limit and required them to do additional annual stack tests, upon which again the Department would assess the data for an appropriate NO_X limit.

   In a Part 70 Significant License Modification amendment application dated September 3, 2014 and in accordance with the established NO_X RACT, Madison requested that the No. 6 fuel oil NO_X emission limits for Boilers 4 and 6 be set at 0.40 lb/MMBtu. An evaluation of the past stack test results for NO_X yielded an average result of 0.35 lb/MMBtu from Boiler 4 from the years 2007 – 2011 and 0.34 lb/MMBtu for Boiler 6 from the years 2007 – 2013. Results from the 2012 and 2013 years for Boiler 4 were not applicable because the unit was firing natural gas. Therefore, the 0.40 lb/MMBtu NO_X

emission limit for Boilers 4 and 6 for firing No. 6 fuel oil is determined to be meeting NO_X RACT and is considered BPT and will be incorporated in this license.

In addition, the Part 70 Significant License Modification application requested that the annual testing for NO_X be reduced from annually to within 12 months (1 year) of when a boiler combusts No. 6 fuel oil for 25% or more of its annual heat input for all fuels in any 12 month rolling total period. Since the issuance of the initial NO_X RACT, the facility has obtained NSR licenses for and undergone modifications to their boilers to burn natural gas. The natural gas is used as the primary fuel source with No. 6 fuel oil being fired as backup if needed. With the decrease in NO_X emissions associated with the burning of natural gas, as well as the lower emission rate for when the facility does fire No. 6 fuel oil, the Department determined the reduction in testing to be meeting NO_X RACT, is considered BPT, and will be incorporated in this Part 70 license.

2. Boiler 7
In license A-427-71-D-A (issued January 10, 1996), NO_X RACT for Boiler 7 was determined to be meeting a 0.4 lb/MMBtu NO_X emission limit based on a 24-hour daily block arithmetic average basis while continuing to operate the low NO_X burners and flue gas recirculation (FGR) system. Compliance with the emission limit is determined through the use of a NO_X continuous emission monitor (CEM).

3. Emergency Fire Pumps (Diesel Units)
To be exempt from NO_X RACT, Madison limits the operation of each emergency fire pump to 500 hours/year, based on a 12-month rolling total as licensed in A-427-71-D-A (issued January 10, 1996). By limiting the operation of the emergency units, the maximum potential of each unit is less than 10 tons per year of NO_X, and are exempt from 06-096 CMR 138. [06-096 CMR 138 (1)(B) and A-427-71-D-A (1/10/1996)]

C. VOC RACT (Reasonably Available Control Technology)

Reasonably Available Control Technology for Facilities that Emit Volatile Organic Compounds, 06-096 CMR 134 (as amended) is applicable to sources that have the potential to emit quantities of VOC equal to or greater than 40 tons/year. Amendment A-427-71-C-R, issued to the facility on February 15, 1995, addressed VOC RACT requirements. VOC RACT requirements of 06-096 CMR 134 apply only to the facility's Groundwood Operations since boilers, generators and paper machines are exempt VOC emitting equipment according to 06-096 CMR 134 (1)(C)(4) and (1)(C)(7) when determining the facility's annual VOC emissions. It was determined through stack testing in 1995 and 2005 of the Groundwood

Operations that VOC emissions do not exceed 40 tons per year. Therefore, Madison is not subject to 06-096 CMR 134.

D. Mandatory Greenhouse Gas (GHG) Reporting

Federal regulation 40 CFR Part 98, *Mandatory Greenhouse Gas Reporting*, which contains GHG reporting and related monitoring and recordkeeping requirements, is applicable to the owners/operators of any facility which falls into any one of the following three categories, per 40 CFR Part 98, Subpart A, *General Provision*, § 98.2, *Who must report?*

(a)(1) A facility that contains any source category that is listed in Table A–3 of this subpart in any calendar year starting in 2010.

(a)(2) A facility that contains any source category that is listed in Table A–4 of this subpart and that emits 25,000 metric tons CO_2e or more per year in combined emissions from stationary fuel combustion units, miscellaneous uses of carbonate, and all applicable source categories that are listed in Table A–3 and Table A–4 of this subpart.

(a)(3) A facility that in any calendar year starting in 2010 meets all three of the conditions listed in this paragraph (a)(3). For these facilities, the annual GHG report must cover emissions from stationary fuel combustion sources only.
(i) The facility does not meet the requirements of either paragraph (a)(1) or (a)(2) of this section.
(ii) The aggregate maximum rated heat input capacity of the stationary fuel combustion units at the facility is 30 MMBtu/hour or greater.
(iii) The facility emits 25,000 metric tons CO_2e or more per year in combined emissions from all stationary fuel combustion sources.

Madison is a pulp and paper manufacturing facility, as found in Table A-4 of this subpart, and thus is subject under (a)(2) above. This facility shall fulfill the recordkeeping and reporting requirements of 40 CFR Part 98.

E. Compliance Assurance Monitoring (CAM)

40 CFR Part 64, *Compliance Assurance Monitoring* (CAM), is applicable to units at major sources if the unit has emission limits, a control device to meet the limits, and pre-control emissions greater than 100 tons/year for any pollutant. The only unit at Madison that meets all three applicability criteria for CAM monitoring requirements is Boiler 7 for the pollutant NO_X with the operation of a flue gas recirculation (FGR) system as a control. However, 40 CFR Part 64 specifies the exemption from specific CAM requirements for any emission units subject to

emission limitations or standards for which a Part 70 air emission license specifies a continuous compliance determination method, as well as the exemption from specific CAM requirements for any emission units subject to emission limitations or standards in a NSPS or NESHAP regulation proposed by the Administrator after November 15, 1990. [40 CFR Part §64.2(b)(1)(vi) and (i)] Therefore, since Boiler 7 both operates a NO_X CEM and is subject to emission limits in NSPS 40 CFR Part 60, Subpart Db, which was proposed after November 15, 1990, the unit is not subject to any monitoring requirements of 40 CFR Part 64. The low NO_X burners installed on Boilers 4, 6, and 7 are not considered a 'control device' according to the definition in §64.1 due to the burners not being an add-on control, but rather a combustion design feature. Therefore, federal regulation 40 CFR Part 64 does not apply to any unit at Madison.

F. Stack Testing for Particulate Matter

As was addressed in license amendment A-427-40-E-A (issued May 7, 2014), since the issuance of the initial Part 70 air emission license, the statutory requirement of 38 M.R.S.A. §589, Sub-section 2 has been revised as follows: "A person is not required to conduct stack tests for particulate matter on a source monitored by a continuous monitoring device for opacity as specified by 40 Code of Federal Regulations, Part 60, Appendix B, specification 1 or appropriate surrogate parameters as required by the commissioner more frequently than once every 5 years unless visible emissions, operating parameters or other information indicates the source may be operating out of compliance with any applicable emission standard or unless there are more stringent federal requirements. If visible emissions, operating parameters or other information indicates potential noncompliance with an air emission standard or if there are more stringent federal requirements, the Department may require additional stack tests." The revised timeframe for PM stack testing was changed appropriately in A-427-40-E-A (issued May 7, 2014) for Boilers 4 and 7 from 2 years to 5 years since these units are required to continuously monitor for opacity.

As a result of Boilers 4 and 7 firing natural gas, Madison has requested to further clarify when PM testing is required. Madison has requested to add the language of requiring PM testing on Boilers 4 and 7 to within 12 months of when the fuel oil combustion rate is 30% or more of the individual boilers' annual heat input from all fuels in any 12-month rolling period. The stack testing is not required to be performed more frequently than every 5 years per 38 M.R.S.A. §589, Sub-section 2, and therefore may extend beyond the 5 year timeframe depending on the fuels fired.

Due to Madison gaining the capability to fire natural gas in Boiler 6 in NSR license A-427-77-5-A (issued April 1, 2014), the facility has requested to reduce the frequency in PM testing for Boiler 6 also. Madison was required to perform

PM testing on Boiler 6 every two years because the boiler fired only fuel oil and does not have a continuous opacity monitor. Madison has requested to reduce the PM testing frequency for Boiler 6 from once every 2 years to within 180 days from when No. 6 fuel oil is burned for 30% or more of the boiler's annual heat input from all fuels in any 12-month rolling total period. The stack testing is not required to be performed more frequently than every 2 years per BPT and therefore may extend beyond the 2 year timeframe depending on the fuels fired.

The Department has determined the reduction in stack testing to be satisfactory given the addition of natural gas as a fuel and Madison's intention to primarily fire natural gas in Boilers 4, 6, and 7.

G. 40 CFR Part 63, Subpart S

Madison is subject to 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industries* because they utilize mechanical pulping processes using wood to produce pulp and paper and the facility is considered a major source of HAPs since the facility has the potential to emit over 25 tons/year of all combined HAPS. However, because Madison operates mechanical pulping processes and because there is not a bleaching system, there are no applicable standards or requirements required by the federal regulation.

H. Boiler 4

Boiler 4 is used to provide steam for the facility's processes, building heat and electrical generation. The boiler was manufactured in 1967 by Combustion Engineering and is licensed at a capacity of 119 MMBtu/hour when firing No. 6 fuel oil and 124.8 MMBtu/hour when firing natural gas. When firing natural gas, the boiler has the same steam output as when firing No. 6 fuel oil, but the combustion of natural gas results in a 4% reduction in boiler efficiency; therefore the heat input must be slightly higher to achieve the same output. Natural gas was initially added as a fuel source in 2011 under New Source Review (NSR) license A-427-77-2-A (issued September 1, 2011), however the licensed emission standards when firing natural gas were amended in NSR license A-427-77-4-A (January 24, 2012). This is incorporated in this part 70 license. The burner configuration on Boiler 4 is such that the boiler fires either fuel oil or natural gas, but does not allow the fuels to be fired simultaneously. In addition, distillate fuel is used at startup when burning No. 6 fuel oil and a small amount of specification waste oil that is generated on site is also burned.

Emissions from Boiler 4 exit through Stack #1, which is combined with emissions from Boilers 6 and 7, which has an inside diameter of 44 inches and an above ground level height of 250 feet.

1. Control Equipment

   Boiler 4 is equipped with a Coen low NO_X burner for the control of NO_X emissions. The boiler also has an automated combustion control system (oxygen trim system) to monitor O_2 and ensure an optimum air-to-fuel ratio in the combustion zone and maximize burner efficiency, thereby minimizing PM.

2. NO_X RACT

   NO_X RACT for Boiler 4 was determined to be the installation of a low NOx burner system and, beginning on the effective date of this license, compliance with a licensed NO_X emission limit of 0.4 lb/MMBtu while firing No. 6 fuel oil. Compliance with the NO_X emission limit for burning No. 6 fuel oil is to be demonstrated with a stack test within 12 months of when the No. 6 fuel oil combustion rate is 25% or more of the boiler's annual heat input for all fuels in any 12 month rolling total period. The NO_X emission limit and stack test requirement is based upon the Part 70 Significant License Modification amendment application dated September 3, 2014 and in accordance with 06-096 CMR 138(4), A-427-71-D-A (1/10/1996), and 06-096 CMR 140, BPT.

3. New Source Performance Standards (NSPS)

   Due to either the date of installation and/or the heat input capacity, Boiler 4 is not subject to the following 40 CFR Part 60 Subparts:

   - 40 CFR Part 60, Subpart D, *Standards of Performance for Fossil-Fuel-Fired Steam Generators,* which applies to fossil fuel fired steam generators with a heat input capacity of 250 MMBtu/hour or more for which construction is commenced after August 17, 1971;

   - 40 CFR Part 60, Subpart Da, *Standards of Performance for Electric Utility Steam Generating Units,* which applies to electric utility steam generating units with a heat input capacity of 250 MMBtu/hour or more for which construction is commenced after September 18, 1978.

   - 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, which applies to steam generating units with a heat input capacity between 10 MMBtu/hour and 100 MMBtu/hour and constructed after June 9, 1989.

   - 40 CFR Part 60, Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, which applies to steam generating units for which construction, modification, or reconstruction is commenced after June 19, 1984, and which have a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hr.

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   Boiler 4 is subject to the applicable requirements of 40 CFR Part 63, Subpart DDDDD, *NESHAP Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters* (Boiler MACT). An overview of the standards and requirements of the federal regulation are discussed in a following section.

5. Emission Limits and Streamlining

   For Boiler 4, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.2 lb/MMBtu firing fuel oil	06-096 CMR 103, Section (2)(A)(1)	0.2 lb/MMBtu firing fuel oil 0.05 lb/MMBtu firing natural gas
	0.05 lb/MMBtu firing natural gas	A-427-77-5-A, BACT (4/1/2014)	
	23.8 lb/hr firing fuel oil	A-427-70-A-I (9/26/2003) and 06-096 CMR 140, BPT	23.8 lb/hr firing fuel oil 6.2 lb/hr firing natural gas
	6.2 lb/hr firing natural gas	A-427-77-5-A, BACT (4/1/2014)	
PM_{10} *	23.8 lb/hr firing fuel oil	A-427-70-A-I (9/26/2003) and 06-096 CMR 140, BPT	23.8 lb/hr firing fuel oil 6.2 lb/hr firing natural gas
	6.2 lb/hr firing natural gas	A-427-77-5-A, BACT (4/1/2014)	
SO_2	2% S limit No. 6 fuel oil	06-096 CMR 106, Section (2)(A)(2)	2% sulfur content No. 6 fuel oil limit, by weight, prior to Jan. 1, 2018 0.5% sulfur content No. 6 fuel oil limit, by weight, beginning Jan. 1, 2018
	2% S No. 6 fuel oil prior to Jan. 1, 2018 or the date specified in the statute	38 MRSA §603-A(2)(A)(1) and (2)	
	0.5% S No. 6 fuel oil beginning Jan. 1, 2018 or the date specified in the statute	38 MRSA §603-A(2)(A)(1) and (2)	
	ASTM D396 compliant distillate fuel (0.5% S limit)	06-096 CMR 140, BPT	Distillate fuel ASTM D396 compliant #2 fuel oil (0.5% S)

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
	0.005% S distillate fuel beginning July 1, 2016 or the date specified in the statute	38 MRSA §603-A(2)(A)(3)	0.005% S (50 ppm) limit, distillate fuel beginning July 1, 2016
	0.0015% S distillate fuel beginning Jan. 1, 2018 or the date specified in the statute	38 MRSA §603-A(2)(A)(3)	0.0015% S (15 ppm) limit, distillate fuel beginning Jan. 1, 2018
	249 lb/hr firing fuel oil (based on 2% S limit)	A-427-70-A-I, BPT (9/26/2003)	249 lb/hr firing fuel oil prior to Jan. 1, 2018
	62.5 lb/hr firing fuel oil (based on 0.5% S limit)	06-096 CMR 140, BPT	62.5 lb/hr firing fuel oil beginning Jan. 1, 2018
	0.07 lb/hr firing natural gas	AP-42, Table 1.4-2 (0.6 lb/MMscf) dated 7/98 and A-427-77-2-A, BACT (9/1/11)	0.07 lb/hr firing natural gas
NO_X	0.4 lb/MMBtu firing fuel oil	06-096 CMR 138 and 06-096 CMR 140, BPT	0.4 lb/MMBtu firing fuel oil
	0.2 lb/MMBtu firing natural gas	Burner Vendor/Stack Test Data and A-427-77-4-A, BACT (1/24/12)	0.2 lb/MMBtu firing natural gas
	47.6 lb/hr firing fuel oil	06-096 CMR 140, BPT	47.6 lb/hr firing fuel oil
	25.0 lb/hr firing natural gas	Burner Vendor/Stack Test Data and A-427-77-4-A, BACT (1/24/12)	25.0 lb/hr firing natural gas
CO	4.2 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	4.2 lb/hr firing fuel oil
	10.3 lb/hr firing natural gas	AP-42, Table 1.4-1 (84 lb/MMscf) dated 7/98 and A-427-77-2-A, BACT (9/1/11)	10.3 lb/hr firing natural gas
VOC	1.1 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	1.1 lb/hr firing fuel oil
	0.7 lb/hr firing natural gas	AP-42, Table 1.4-2 (5.5 lb/MMscf) dated 7/98 and A-427-77-2-A, BACT (9/1/11)	0.7 lb/hr firing natural gas

Table Notes: * Only includes filterable PM_{10} in accordance with the test methods seen below (40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A)

% S = percent fuel sulfur, by weight

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	For firing Fuel Oil: 30% opacity on a 6-minute block average basis, except for no more than two 6-minute block averages in a 3-hour period.	06-096 CMR 101, Section (2)(B)(1)(a)(i) and A-427-70-A-I (9/25/03)	When firing fuel oil: 30% opacity on a 6-minute block average basis except for no more than two 6-minute block averages in a 3-hour period.
	For firing NG: 10% opacity on a 6-minute block average basis, except for no more than one 6-minute block average in a 3-hour period.	06-096 CMR 101, Section (2)(B)(1)(c) and A-427-77-2-A, BACT (9/1/11)	When firing natural gas: 10% opacity on a 6-minute block average basis except for no more than one 6-minute block average in a 3-hour period.

Table Notes: Visible emissions for Boiler 4 is monitored by a continuous opacity monitoring system (COMS) in the breaching section prior to exhausting to Stack #1 in combination with Boilers 6 and 7.

6. Fuel

The Department's 06-096 CMR 106, *Fuel Burning Equipment Particulate Emission Standards* and 38 MRSA §603-A(2)A(1) and (2) requires that prior to January 1, 2018, any No. 6 fuel oil fired shall have a maximum sulfur content of 2.0% by weight; and per 38 MRSA §603-A(2)A(1) and (2), beginning January 1, 2018, or by the date otherwise stated in the statute, any No. 6 fuel oil fired shall have a maximum sulfur content of 0.5% by weight. The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in Boiler 4 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of

this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

7. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler 4 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Emission Limit	Compliance Method	Frequency
PM	lb/MMBtu	Stack Testing: 40 CFR Part 60, App. A, Method 5	Within 12 months of when the fuel oil combustion rate is 30% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period*
	lb/hr		
PM_{10}	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu	Stack Testing: 40 CFR Part 60, App. A, Method 7	Within 12 months of when the fuel oil combustion rate is 25% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period
	lb/hr		
CO	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	Opacity limits	COMS on a 6-minute block average basis	Continuous (in accordance with 40 CFR Part 60, App. B)

Table Note: * The PM stack testing is not required to be performed more frequently than every 5 years per 38 M.R.S.A. §589, Sub-section 2 and may extend beyond the 5 year timeframe depending on the fuels fired.

8. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which includes fuel use records and fuel analysis records. Periodic monitoring for Boiler 4 shall also include the following, whenever the equipment is operating.

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
No. 6 fuel oil used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Natural gas used	MMscf	Recordkeeping	Monthly, and 12-month rolling total
Distillate fuel oil used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Waste oil used	Gallons	Estimation of amount collected and burned	Monthly, and 12-month rolling total
No. 6 fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Waste oil sulfur content	Percent, by weight	Analysis on a representative sample	As necessary to obtain a representative sample
O_2 level	%	O_2 monitor	Once per shift

The above fuel usages required to be recorded as shown above, shall also be converted to a heat input MMBtu/yr using the respective fuels specific heating value. The MMBtu/yr values are used when complying with the facility's fuel cap and in determination if NO_X testing is required.

9. Parameter Monitors

The following parameter monitor is required for Boiler 4.

Parameter	Units	Monitoring Tool/Method*	Frequency	
			Monitor	Record
Steam flow	lb steam/hr	Steam flow meter Amp meter with a continuous chart recorder	Continuously **	Once per shift

Table Notes:
* The steam flow can be recorded with either monitoring method
** Continuously shall mean ongoing while the equipment is operating

10. Continuous Opacity Monitoring System (COMS)

For Boiler 4, the table below lists the required COMS.

Continuous Monitor	Units	Averaging Period	Origin and Authority
Opacity COMS	%	6-minute block average	06-096 CMR 117

I. Boiler 6

Boiler 6 is used to provide steam for the facility's processes, building heat and electrical generation. The boiler was manufactured in 1980 by Nebraska Boiler Co. and is licensed at a capacity of 99.6 MMBtu/hour when firing No. 6 fuel oil and natural gas. Natural gas was added as a fuel source in 2014 under NSR license A-427-77-5-A (issued April 1, 2014) and incorporated in this part 70 license. In addition, distillate fuel is used at startup when burning No. 6 fuel oil and a small amount of specification waste oil generated on site is also burned.

Emissions from Boiler 6 exit through Stack #1, which is combined with emissions from Boilers 4 and 7, which has an inside diameter of 44 inches and an above ground level height of 250 feet.

1. Control Equipment

Boiler 6 is equipped with low NO_X burners for the control of NO_X emissions. The boiler also has an automated combustion control system (oxygen trim system) to monitor O_2 and ensure an optimum air-to-fuel ratio in the combustion zone and maximize burner efficiency, thereby minimizing PM.

2. NO_X RACT

NO_X RACT for Boiler 6 was determined to be the installation of a low NOx burner system and, beginning on the effective date of this license, compliance with a licensed NO_X emission limit of 0.4 lb/MMBtu while firing No. 6 fuel oil. Compliance with the NO_X emission limit for burning No. 6 fuel oil is to be demonstrated with a stack test within 12 months of when the No. 6 fuel oil combustion rate is 25% or more of the boiler's annual heat input for all fuels in any 12 month rolling total period. The NO_X emission limit and stack test requirement is based upon the Part 70 Significant License modification amendment application dated September 3, 2014 and in accordance with 06-096 CMR 138(4), A-427-71-D-A (1/10/1996), and 06-096 CMR 140, BPT.

3. New Source Performance Standards (NSPS)

Due to either the heat input capacity and/or the date or installation, Boiler 6 is not subject to the following 40 CFR Part 60 Subparts:

- 40 CFR Part 60, Subpart D, *Standards of Performance for Fossil-Fuel-Fired Steam Generators,* which applies to fossil fuel fired steam generators with a heat input capacity of 250 MMBtu/hour or more for which construction is commenced after August 17, 1971;

- 40 CFR Part 60, Subpart Da, *Standards of Performance for Electric Utility Steam Generating Units,* which applies to electric utility steam generating units with a heat input capacity of 250 MMBtu/hour or more for which construction is commenced after September 18, 1978.

- 40 CFR Part 60, Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, which applies to steam generating units for which construction, modification, or reconstruction is commenced after June 19, 1984, and which have a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hr.

- 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, which applies to steam generating units with a heat input capacity between 10 MMBtu/hour and 100 MMBtu/hour and constructed after June 9, 1989.

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

Boiler 6 is subject to the applicable requirements of 40 CFR Part 63, Subpart DDDDD, *NESHAP Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters* (Boiler MACT). An overview of the standards and requirements of the federal regulation are discussed in a following section.

5. Emission Limits and Streamlining

For Boiler 6, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.2 lb/MMBtu firing fuel oil	06-096 CMR 103, Section (2)(A)(1)	0.2 lb/MMBtu firing fuel oil
	0.05 lb/MMBtu firing natural gas	A-427-77-5-A, BACT (4/1/2014)	0.05 lb/MMBtu firing natural gas
	10.0 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	10.0 lb/hr firing fuel oil
	5.0 lb/hr firing natural gas	A-427-77-5-A, BACT (4/1/2014)	5.0 lb/hr firing natural gas

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM_{10} *	10.0 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	10.0 lb/hr firing fuel oil
	5.0 lb/hr firing natural gas	A-427-77-5-A, BACT (4/1/2014)	5.0 lb/hr firing natural gas
SO_2	2% S limit	06-096 CMR 106, Section (2)(A)(2)	2% sulfur content limit, by weight, prior to Jan. 1, 2018
	2% S No. 6 fuel oil prior to Jan. 1, 2018 or the date specified in the statute	38 MRSA §603-A(2)(A)(1) and (2)	
	0.5% S No. 6 fuel oil beginning Jan. 1, 2018 or the date specified in the statute	38 MRSA §603-A(2)(A)(1) and (2)	0.5% sulfur content limit, by weight, beginning Jan. 1, 2018
	ASTM D396 compliant distillate fuel (0.5% S limit)	06-096 CMR 140, BPT	Distillate fuel ASTM D396 compliant #2 fuel oil (0.5% S)
	0.005% S distillate fuel beginning July 1, 2016 or the date specified in the statute	38 MRSA §603-A(2)(A)(3)	0.005% S (50 ppm) limit, distillate fuel beginning July 1, 2016
	0.0015% S distillate fuel beginning Jan. 1, 2018 or the date specified in the statute	38 MRSA §603-A(2)(A)(3)	0.0015% S (15 ppm) limit, distillate fuel beginning Jan. 1, 2018
	209 lb/hr firing fuel oil (based on 2% S limit)	A-427-70-A-I, BPT (9/26/2003)	209 lb/hr firing fuel oil prior to Jan. 1, 2018
	52.3 lb/hr firing fuel oil (based on 0.5% S limit)	06-096 CMR 140, BPT	52.3 lb/hr firing fuel oil beginning Jan. 1, 2018
	0.06 lb/hr firing natural gas	AP-42, Table 1.4-2 (0.6 lb/MMscf) dated 7/98 and A-427-77-5-A, BACT (4/1/2014)	0.06 lb/hr firing natural gas
NO_X	0.4 lb/MMBtu firing fuel oil	06-096 CMR 138 and 06-096 CMR 140, BPT	0.4 lb/MMBtu firing fuel oil
	0.2 lb/MMBtu firing natural gas	A-427-77-5-A, BACT (4/1/2014) and Manufacturer's Data	0.2 lb/MMBtu firing natural gas

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
	39.8 lb/hr firing fuel oil	06-096 CMR 140, BPT	39.8 lb/hr firing fuel oil
	19.9 lb/hr firing natural gas	A-427-77-5-A, BACT (4/1/2014) and Manufacturer's Data	19.9 lb/hr firing natural gas
CO	3.5 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	3.5 lb/hr firing fuel oil
	8.2 lb/hr firing natural gas	AP-42, Table 1.4-1 (84 lb/MMscf) dated 7/98 and A-427-77-5-A, BACT (4/1/2014)	8.2 lb/hr firing natural gas
VOC	0.9 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	0.9 lb/hr firing fuel oil
	0.5 lb/hr firing natural gas	AP-42, Table 1.4-2 (5.5 lb/MMscf) dated 7/98 and A-427-77-5-A, BACT (4/1/2014)	0.5 lb/hr firing natural gas

Table Notes: * Only includes filterable PM_{10} in accordance with the test methods seen below (40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A)
% S = percent fuel sulfur, by weight

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions	<u>For firing Fuel Oil:</u> 30% opacity on a 6-minute block average basis except for no more than two 6-minute block averages in a 3-hour period.	06-096 CMR 101, Section (2)(B)(1)(a)(i) and A-427-70-A-I (9/25/03)	<u>When one or more boilers are firing fuel oil:</u> 30% opacity on a 6-minute block average basis except for no more than two 6-minute block averages in a 3-hour period.
	<u>For firing NG:</u> 10% opacity on a 6-minute block average basis except for no more than one 6-minute block average in a 3-hour period.	06-096 CMR 101, Section (2)(B)(1)(c) and A-427-77-2-A, BACT (9/1/11)	<u>When all boilers are firing NG:</u> 10% opacity on a 6-minute block average basis except for no more than one 6-minute block average in a 3-hour period.

Table Note: Boiler 6 exhausts to Stack #1 in combination with Boilers 4 and 7.

6. Fuel

The Department's 06-096 CMR 106, *Fuel Burning Equipment Particulate Emission Standards* and 38 MRSA §603-A(2)A(1) and (2) requires that prior to January 1, 2018, any No. 6 fuel oil fired shall have a maximum sulfur content of 2.0% by weight; and per 38 MRSA §603-A(2)A(1) and (2), beginning January 1, 2018, or by the date otherwise stated in the statute, any No. 6 fuel oil fired shall have a maximum sulfur content of 0.5% by weight. The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in Boiler 6 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

7. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler 6 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Limits	Compliance Method	Frequency
PM	lb/MMBtu	Stack Testing: 40 CFR Part 60, App. A, Method 5	Within 180 days of when the No. 6 fuel oil combustion rate is 30% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period. *
	lb/hr		
PM_{10}	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 6	As requested

Pollutant	Limits	Compliance Method	Frequency
NO_X	lb/MMBtu	Stack Testing: 40 CFR Part 60, App. A, Method 7	Within 12 months of when the fuel oil combustion rate is 25% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period
	lb/hr		
CO	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	Opacity limits	COMS on a 6-minute block average basis	Continuous (in accordance with 40 CFR Part 60, App. B)

Table Note: * The PM stack testing is not required to be performed more frequently than every 2 years per BPT and may extend beyond the 2 year timeframe depending on the fuels fired.

8. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which includes fuel use records and fuel analysis records. Periodic monitoring for Boiler 6 shall also include the following, whenever the equipment is operating.

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
No. 6 fuel oil used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Natural gas used	MMscf	Recordkeeping	Monthly, and 12-month rolling total
Distillate fuel used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Waste oil used	Gallons	Estimation of amount collected and burned	Monthly, and 12-month rolling total
No. 6 fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Waste oil sulfur content	Percent, by weight	Analysis on a representative sample	As necessary to obtain a representative sample
O_2 level	%	O_2 monitor	Once per shift

The above fuel usages required to be recorded as shown above, shall also be converted to a heat input MMBtu/yr using the respective fuels specific heating

value. The MMBtu/yr values are used when complying with the facility's fuel cap and in determination if NO_X testing is required.

9. Parameter Monitors

The following parameter monitor is required for Boiler 6.

Parameter	Units	Monitoring Tool/Method*	Frequency	
			Monitor	Record
Steam flow	lb steam/hr	Steam flow meter Amp meter with a continuous chart recorder	Continuously **	Once per shift

Table Notes:
* The steam flow can be recorded with either monitoring method
** Continuously shall mean ongoing while the equipment is operating

10. CEMS and COMS

There are no continuous emission monitoring systems (CEMS) or continuous opacity monitoring systems (COMS) required for Boiler 6.

J. Boiler 7

Boiler 7 is used to provide steam for the facility's processes, building heat and electrical generation. The boiler was manufactured in 1991 by Nebraska Boiler Co. and is licensed at a capacity of 117 MMBtu/hour when firing No. 6 fuel oil and 122.7 MMBtu/hr when firing natural gas. When firing natural gas, the boiler has the same steam output as when firing No. 6 fuel oil, but the combustion of natural gas results in a 4% reduction in boiler efficiency; therefore the heat input must be slightly higher to achieve the same output. Natural gas was added as a fuel source in 2011 under New Source Review license A-427-77-4-A (issued January 24, 2012) and incorporated in this part 70 license. In addition, distillate fuel is used at startup when burning No. 6 fuel oil.

Emissions from Boiler 7 exit through Stack #1, which is combined with emission from Boilers 4 and 6, which has an inside diameter of 44 inches and an above ground level height of 250 feet.

1. Control Equipment

Boiler 7 is equipped with low NO_X burners and flue gas recirculation (FGR) system for the control of NO_X emissions. The boiler also has an automated combustion control system (oxygen trim system) to monitor O_2 and ensure an optimum air-to-fuel ratio in the combustion zone and maximize burner efficiency thereby minimizing PM.

2. NO_X RACT

Boiler 7 was determined to be meeting NO_X RACT by complying with a 0.4 lb/MMBtu NO_X emission limit based on a 24-hour daily block arithmetic average basis while continuing to operate the low NO_X burners and flue gas recirculation (FGR). Compliance with the emission limit is determined through the use of a NO_X CEM.

3. New Source Performance Standards (NSPS)

Boiler 7 is subject to federal regulation 40 CFR Part 60, Subpart Db, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, which applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and which has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hour. Due to its construction date, Boiler 7 is subject to the Subpart Db requirements for SO_2, NO_X, and visible emissions (opacity). The applicable NSPS requirements are addressed in this license.

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

Boiler 7 is subject to the applicable requirements of 40 CFR Part 63, Subpart DDDDD, *NESHAP Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters* (Boiler MACT). An overview of the standards and requirements of the federal regulation are discussed in a following section.

5. Emission Limits and Streamlining

For Boiler 7, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.08 lb/MMBtu firing fuel oil	06-096 CMR 103, Section (2)(B)(1)(b)	0.08 lb/MMBtu firing fuel oil
	0.05 lb/MMBtu firing natural gas	A-427-77-5-A, BACT (4/1/2014)	0.05 lb/MMBtu firing natural gas
	9.4 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	9.4 lb/hr firing fuel oil
	6.1 lb/hr firing natural gas	A-427-77-5-A, BACT (4/1/2014)	6.1 lb/hr firing natural gas

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM_{10} *	9.4 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	9.4 lb/hr firing fuel oil
	6.1 lb/hr firing natural gas	A-427-77-5-A, BACT (4/1/2014)	6.1 lb/hr firing natural gas
SO_2	2% S limit firing fuel oil	06-096 CMR 106, Section (2)(A)(2)	0.5% sulfur content limit, by weight **
	0.5% S limit firing fuel oil	40 CFR Part 60, Subpart Db §60.42b(j) and A-427-70-A-I (9/26/2003)	
	ASTM D396 compliant distillate fuel (0.5% S limit)	06-096 CMR 140, BPT	Distillate fuel ASTM D396 compliant #2 fuel oil (0.5% S)
	0.005% S distillate fuel beginning July 1, 2016 or the date specified in the statute	38 MRSA §603-A(2)(A)(3)	0.005% S (50 ppm) limit, distillate fuel beginning July 1, 2016
	0.0015% S distillate fuel beginning Jan. 1, 2018 or the date specified in the statute	38 MRSA §603-A(2)(A)(3)	0.0015% S (15 ppm) limit, distillate fuel beginning Jan. 1, 2018
	61.2 lb/hr firing fuel oil (based on 0.5% S limit)	A-427-70-A-I, BPT (9/26/2003)	61.2 lb/hr firing fuel oil
	0.07 lb/hr firing natural gas	AP-42, Table 1.4-2 (0.6 lb/MMscf) dated 7/98 and A-427-77-2-A, BACT (9/1/11)	0.07 lb/hr firing natural gas
NO_X	0.40 lb/MMBtu firing fuel oil (based on a 24-hour daily block avg)	06-096 CMR 138, NO_X RACT [from A-427-71-D-A (1/10/1996)]	0.4 lb/MMBtu firing fuel oil (based on a 24-hour daily block avg and 30-day rolling avg) [1]
	0.40 lb/MMBtu firing fuel oil (based on a 30-day rolling avg)	40 CFR Part 60, Subpart Db, §60.44b(a)(2)(ii)	
	0.2 lb/MMBtu firing natural gas (based on a 30-day rolling avg)	40 CFR Part 60, Subpart Db, §60.44b(a)(1)(ii)	0.2 lb/MMBtu firing natural gas (based on a 30-day rolling average)
	0.2 lb/MMBtu firing natural gas	A-427-77-4-A, BACT (1/24/12) and Burner Vendor/Stack Test Data	
	46.8 lb/hr firing fuel oil [2]	A-427-70-A-I, BPT (9/26/2003)	46.8 lb/hr firing fuel oil [2]

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
	24.5 lb/hr firing natural gas	A-427-77-4-A, BACT (1/24/12) and Burner Vendor/Stack Test Data	24.5 lb/hr firing natural gas
CO	19.9 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	19.9 lb/hr firing fuel oil
	10.1 lb/hr firing natural gas	AP-42, Table 1.4-1 (84 lb/MMscf) dated 7/98 and A-427-77-2-A, BACT (9/1/11)	10.1 lb/hr firing natural gas
VOC	1.1 lb/hr firing fuel oil	A-427-70-A-I, BPT (9/26/2003)	1.1 lb/hr firing fuel oil
	0.7 lb/hr firing natural gas	AP-42, Table 1.4-2 (5.5 lb/MMscf) dated 7/98 and A-427-77-2-A, BACT (9/1/11)	0.7 lb/hr firing natural gas

Table Notes:

* Only includes filterable PM_{10} in accordance with the test methods seen below (40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A)

** streamlining requested

% S = percent fuel sulfur, by weight

[1] The NO_X lb/MMBtu limits shall be kept on both a 24-hour daily block arithmetic average and a 30-day rolling total average to satisfy both NO_X RACT established in A-427-71-D-A (issued January 10, 1996) and 40 CFR Part 60, Subpart Db, §60.44b(a)(2)(ii). The 30-day rolling average shall be calculated and updated in 24-hour blocks in which a 24-hour block constitutes one calendar day. The 24-hour block average shall be calculated as one calendar day, midnight to midnight. [A-427-70-A-I (September 25, 2003)]

[2] The original part 70 license A-427-70-A-I (9/26/2003) had the requirement to record the NO_X lb/hr limit on both a 24-hour daily block arithmetic average and a 30-day rolling total average. However, the lb/hr averaging periods are not needed due to the fact that the lb/hr and lb/MMBtu limits are linear to one another. The lb/hr limits should be in compliance as long as the lb/MMBtu limits are demonstrating compliance and are recorded for both averaging periods.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
Visible Emissions**	For Combusting Fuel Oil or Mixtures with other Fuels: 20% opacity on a 6-minute average basis, except for one 6-minute period per hour of not more than 27% opacity	40 CFR Part 60, Subpart Db, §60.43b(f)	When firing fuel oil *: 20% opacity on a 6-minute average basis, except for one 6-minute period per hour of not more than 27% opacity When firing natural gas: 10% opacity on a 6-minute block average basis except for no more than one 6-minute block average in a 3-hour period.
	For firing Fuel Oil: 30% opacity on a 6-minute block average basis except for no more than two 6-minute block averages in a 3-hour period.	06-096 CMR 101, Section (2)(B)(1)(a)(i) and A-427-70-A-I (9/25/03)	
	For firing NG: 10% opacity on a 6-minute block average basis except for no more than one 6-minute block average in a 3-hour period.	06-096 CMR 101, Section (2)(B)(1)(c) and A-427-77-2-A, BACT (9/1/11)	

Table Notes: * streamlining requested
** Visible emissions for Boiler 7 is measured by a continuous opacity monitoring system (COMS) in the breaching section prior to exhausting to Stack #1 in combination with Boilers 4 and 6.

6. Fuel

Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in Boiler 7 shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

7. Emission Limit Compliance Methods

Compliance with the emission limits associated with Boiler 7 shall be demonstrated in accordance with the methods and frequencies indicated in the table below or other methods or frequencies as approved by the Department.

Pollutant	Emission Limit	Compliance Method	Frequency
PM	lb/MMBtu	Stack Testing: 40 CFR Part 60, App. A, Method 5	Within 12 months of when the fuel oil combustion rate is 30% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period *
	lb/hr		
PM_{10}	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu	NO_X CEMS, 24-hour daily block average and 30-day rolling average basis	Continuously, in accordance with 06-096 CMR 117
	lb/hr	NO_X CEMS	
CO	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	Stack Testing: 40 CFR Part 60, App. A, Method 25 or 25A	As requested
Visible Emissions	Opacity limits	COMS, 6-minute block average basis	Continuous (in accordance with 40 CFR Part 60, App. B)

Table Note: * The PM stack testing is not required to be performed more frequently than every 5 years per 38 M.R.S.A. §589, Sub-section 2 and may extend beyond the 5 year timeframe depending on the fuels fired.

8. Periodic Monitoring

Madison shall monitor and record parameters for Boiler 7 and its associated air pollution control equipment as indicated in the following table whenever the equipment is operating.

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
No. 6 fuel oil used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Natural gas used	MMscf	Recordkeeping	Monthly, and 12-month rolling total

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
Distillate fuel used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
No. 6 fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
No. 6 fuel oil annual capacity factor	-	Ratio calculation *	Monthly and calendar year
Natural gas annual capacity factor	-	Ratio calculation *	Monthly and calendar year
Distillate fuel annual capacity factor	-	Ratio calculation *	Monthly and calendar year

Table Notes: * The *annual capacity factor* means the ratio between the actual heat input to the steam generating unit from the respective fuel during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours on that fuel during a calendar year at the maximum steady state design heat input capacity. [40 CFR Part §60.41b]

The above fuel usages required to be recorded as shown above, shall also be converted to a heat input MMBtu/yr using the respective fuels specific heating value. The MMBtu/yr values are used when complying with the facility's fuel cap.

9. Parameter Monitors

The following parameter monitor is required for Boiler 7.

Parameter	Units	Monitoring Tool/Method	Frequency	
			Monitor	Record
Steam flow [1]	lb steam/hr	Steam flow meter	Continuously [2]	Once per shift
		Ampmeter with a continuous chart recorder		
Flue Gas Recirculation	scf/hr	Gas flow monitor [3]	Once per shift	

Table Notes:
[1] The steam flow can be recorded by either the steam flow meter or ampmeter monitoring method.
[2] Continuously shall mean ongoing while the equipment is operating.

[3] If there is a malfunction of the gas flow monitor, an ampmeter with a continuous chart recorder may be used on the flue gas recirculation system fan until the flow monitor is repaired or replaced.

10. CEMS and COMS

For Boiler 7, the table below lists the required continuous emission monitoring systems (CEMS) and continuous opacity monitoring systems (COMS). All required CEMS and COMS shall be operated to record accurate data in the units of the applicable standard during all source operating times, except for periods when the CEMS or COMS is subject to established quality assurance and quality control procedures or during periods of unavoidable malfunction as required by 38 M.R.S.A Section 589(3). Any emissions data collected during periods when an emissions unit is not operating shall not be used in determining compliance with any emission limit. [06-096 CMR 117(3)(A)]

Continuous Monitor	Units	Averaging Period	Origin and Authority
NO_X CEMS	lb/MMBtu	24-hour daily block arithmetic average and 30-day rolling average	40 CFR Part 60, Subpart Db (§60.48b(b)(1)), 06-096 CMR 117 and 06-096 CMR 138
O_2 CEMS (or CO_2)	%	30-day rolling average	40 CFR Part 60, Subpart Db (§60.48b(b)(1)) and 06-096 CMR 117
Opacity COMS	%	6-minute block average	06-096 CMR 117

K. Fuel, Sulfur, and Steam Production Limits – Boilers 4, 6, and 7

Previous license amendment, A-427-71-B-A (issued January 22, 1981), included the addition of Boiler 7 which resulted in establishing the first annual fuel caps, annual SO_2 emission restrictions, and annual steam production limits for Madison. The limits were established due to the increase in emissions from Boiler 7 and to prohibit Madison from exceeding significant emissions increase levels and to demonstrate compliance with ambient air quality standards; thereby the amendment was allowed to be processed as a minor modification. Since the issuance of A-427-71-B-A (issued January 22, 1981), the fuel and sulfur limits have been modified due to the addition of fuels being fired in Boilers 4, 6, and 7 and to allow for increased flexibility to the facility.

1. Fuel Limits

Madison was first licensed to an annual 11,000,000 gallons per year of fuel oil from when it was first established in A-427-71-B-A (issued January 22,

1981). In NSR amendments A-427-77-2-A (issued September 1, 2011) and A-427-77-5-A (issued April 1, 2014), Madison began to fire natural gas in Boilers 4, 6, and 7, in addition to the fuel oil already being fired in the units. With the addition of natural gas in the boilers, to ensure compliance with the minor modification status for the NSR licenses and for ease of record keeping, an annual licensing fuel cap of 1,650,000 MMBtu/year in Boilers 4, 6, and 7 based on a 12-month rolling total was determined to be BACT. This fuel limit value of 1,650,000 MMBtu/year equates to the previously licensed 11,000,000 gallons per year fuel limit for fuel oil prior to the addition of natural gas.

2. Sulfur Limits

As was licensed in A-427-71-B-A (issued January 22, 1981), Madison shall restrict the annual SO_2 emissions in Boilers 4, 6, and 7 to less than 1,276 tons per year. The annual SO_2 emission limit was established to have an accurate estimation of the SO_2 emissions as the facility is licensed to fire different No. 6 fuel oil sulfur contents in Boiler 7 versus Boilers 4 and 6. The equation used to calculate the annual SO_2 emissions was updated to include sulfur emissions from the firing of natural gas.

The following equation shall be used to calculate annual SO_2 emissions on a 12-month rolling total basis:

$$\frac{\left(\frac{157\ lb}{1000\ gal}\right)(\mathrm{x}\ \%S)\left(\frac{\mathrm{X}\ gal}{yr}\ No.6\ oil\right)}{\frac{2000\ lb}{ton}} + \frac{\left(\frac{142\ lb}{1000\ gal}\right)(\mathrm{y}\ \%S)\left(\frac{\mathrm{Y}\ gal}{yr}\ No.2\ oil\right)}{\frac{2000\ lb}{ton}} + \frac{\left(\frac{0.6\ lb}{MMscf}\right)\left(\frac{\mathrm{Z}\ MMscf}{yr}\ NG\right)}{\frac{2000\ lb}{ton}}$$

$$\leq 1276\ TPY$$

Where:

x = the weighted average percent (%) sulfur content of the No. 6 fuel oil fired in the previous 12 months
X = the gallons of No. 6 fuel oil fired in the previous 12 months
y = the weighted average percent (%) sulfur content of the distillate fuel fired in the previous 12 months
Y = the gallons of distillate fuel fired in the previous 12 months
Z = the millions of standard cubic feet (MMscf) of natural gas fired in the previous 12 months

The equation above accounts for the addition of natural gas firing in the boilers due to NSR amendments A-427-77-2-A (issued September 1, 2011) and A-427-77-5-A (issued April 1, 2014).

Beginning January 1, 2018, or by the date otherwise stated in 38 MRSA §603-A(1) and (2), once Madison is required to fire No. 6 fuel oil that does not

exceed a maximum sulfur content limit of 0.5% by weight in all boilers, the above annual SO_2 emissions restriction is void. Once the sulfur content is reduced from 2% to 0.5%, the annual SO_2 limit of 1,276 TPY cannot be exceeded even on a worst case scenario. If Boilers 4, 6, and 7 are operating at a worst case scenario to yield the highest possible SO_2 emissions, the maximum SO_2 emissions that can be emitted when firing 0.5% sulfur by weight No. 6 fuel oil in all three boilers for the entirety of the fuel cap is approximately 432 TPY.

3. Steam Production Limits

To meet ambient air quality standards in license amendment A-427-71-B-A (issued January 22, 1981), Madison established steam production limits in Boilers 4 and 6, which are dependent on the operation of Boiler 7. These limits have been carried forward since they were based on firing No. 6 and Madison still has the capability to fire these fuels. However, this Part 70 renewal clarifies that when firing natural gas, these steam production limits do not apply since the pollutant of concern was SO_2.

The following applies only when No. 6 fuel oil is fired in any of the boilers:

a. While Boiler 7 is in operation, the combined steam output from Boilers 4 and 6 shall not exceed 152,000 lbs of steam per hour based on a daily average. During periods of Boiler 7 inactivity, startups, or shutdowns, the combined steam output from Boilers 4 and 6 shall not exceed 176,000 lbs of steam per hour based on a daily average.

b. Madison shall record hourly steam flows in lbs steam per hour for each boiler at all times of operation. A summary of steam flow data shall be included in the quarterly reports.

[A-427-70-A-I (September 25, 2003) and 06-096 CMR 140, BPT]

4. Specification Waste Oil

Madison may burn specification waste oil in Boilers 4 and 6 provided that the license fuel cap, annual sulfur emission limit, and pollutants emission limits are not exceeded. Specification waste oil shall not be burned in Boiler 7. A log shall be maintained recording the quantity of all specification waste oil fired in the boilers. The log shall contain a copy of an analysis performed on a representative sample of on-site generated specification waste oil. If off-site generated specification waste oil is used, the log shall contain copies of the analyses performed on each batch of off-site generated specification waste oil as well as the quantity of specification waste oil fired. The combustion of hazardous waste and the dilution of hazardous waste with non-hazardous

products for combustion purposes is prohibited. [A-427-70-A-I (September 25, 2003) and 06-096 CMR 140, BPT]

L. NESHAP 40 CFR Part 63, Subpart DDDDD: Boiler MACT

Boilers 4, 6, and 7 are subject to the applicable requirements of 40 CFR Part 63, Subpart DDDDD, *NESHAP Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters* (Boiler MACT). Madison must comply with all of the applicable requirements of this regulation no later than January 31, 2016, or no later than the date established per the request for a compliance date extension made in accordance with 40 CFR §63.6(i) per 40 CFR §63.7495(b). Note that if the status of the Final Rule (Boiler MACT Final Rule of January 31, 2013) should change, the compliance date may also change.

The Boiler MACT regulation establishes emission limits, work practice standards, operating limits, and testing and reporting requirements governing HAP emissions from units located at a major HAP source, for each unit which falls into one of the subcategories listed under *Types of Boilers and Process Heaters* in 40 CFR §63.7499. The facility has retained the capability to fire No. 6 fuel oil and distillate fuel in each of the boilers; however, Madison intends to burn natural as supplied by a pipeline as its primary fuel. Based on current and expected future operations, Boilers 4, 6, and 7 are currently considered existing units designed to burn gas 1 fuels, which is defined as the following:

> "*Unit designed to burn gas 1 subcategory* includes any boiler or process heater that burns only natural gas, refinery gas, and/or other gas 1 fuels. Gaseous fuel boilers and process heaters that burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, are included in this definition. Gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply interruptions of any duration are also included in this definition." [40 CFR §63.7575]

The firing of No. 6 fuel oil and distillate fuel only during periods of gas curtailment or gas supply interruptions will allow Madison to remain in the 'unit designed to burn gas 1 subcategory'. For purposes of this subcategory definition, the definition of periods of gas supply or supply interruption according to Subpart DDDDD is as follows:

> "*Period of gas curtailment or supply interruption* means a period of time during which the supply of gaseous fuel to an affected boiler or process heater is restricted or halted for reasons beyond the control of the facility. The act of entering into a contractual agreement with a supplier of natural gas established for curtailment purposes does not constitute a reason that is under the control of a facility for the purposes of this definition. An

increase in the cost or unit price of natural gas due to normal market fluctuations not during periods of supplier delivery restriction does not constitute a period of natural gas curtailment or supply interruption. On-site gaseous fuel system emergencies or equipment failures qualify as periods of supply interruption when the emergency or failure is beyond the control of the facility." [40 CFR §63.7575]

As confirmed with EPA in an email from EPA Region 1 staff, 'periods of gas curtailment of gas supply interruption' includes the disruption of gas supply as the result of compliance with action alerts and Operational Flow Orders issued by the gas supplier in accordance with FERC Gas Tariff filings.

Although Madison is currently operating under the 'unit designed to burn gas 1' subcategory and plans to remain under that subcategory, there is a potential in the future for the facility to switch to firing No. 6 and distillate fuel without operational caveats. If this scenario occurs, Madison shall meet the applicable Boiler MACT requirements for the appropriate subcategory (i.e. units designed to burn liquid fuel).

This license section identifies requirements of the rule that are not dependent on the subcategory of Boilers 4, 6, and 7, and does not list all applicable requirements. Madison shall comply with all applicable requirements of 40 CFR Part 63, Subpart DDDDD by the compliance date in 40 §CFR 63.7495.

Some notifications must be submitted before the facility is required to comply with the applicable emissions standards, work practice standards, and recordkeeping and reporting requirements. [40 CFR §63.7495(d)]

a. Emission Limits and Operating Limits [40 CFR Part 63, Subpart DDDDD, Tables 1, 2, 4, 7, 8]

At the specified compliance date established in 40 CFR §63.7495, Madison shall comply with both the emission limits established by this Air Emission License and the emission limits for specific pollutants contained in the Subpart DDDDD, if applicable. For those pollutants which are limited by both the license and by Subpart DDDDD, the facility shall comply with both limits, if applicable.

(Note: There are no applicable emission limits for specific pollutants for a unit designed to burn gas 1 fuels. The emission limits in Tables 1 and 2, and operating limits in Table 4 are not applicable. [40 CFR §63.7500(e)])

b. Work Practice Standards [40 CFR Part 63, Subpart DDDDD, Table 3]

(1) Madison shall conduct an initial tune-up of Boilers 4, 6, and 7 according to the procedures specified in §63.7540(a)(10)(i) through (vi) no later than the initial tune-up due date established per 40 CFR §63.7495.

Subsequent tune-ups for each boiler must be conducted every 5 years as specified in §63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. Delay of the burner inspection specified in 40 CFR §63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown is permitted; however, an inspection of each burner must occur at least once every 72 months. [40 CFR §63.7540(a)(12)]

Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. [40 CFR §63.7515(d)]

If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR §63.7540(a)(13)]

(2) A one-time energy assessment must be performed on Boilers 4, 6, and 7 by a qualified energy assessor as specified in 40 CFR Part 63, Subpart DDDDD, Table 3(4). The energy assessment shall be performed no later than the compliance date specified in 40 CFR §63.7495.

Note: An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the aforementioned energy assessment requirements is valid. A facility that operates under an energy management program compatible with ISO 50001 that includes applicable boilers and process heaters satisfies the energy assessment requirements. [40 CFR Part 63, Subpart DDDDD, Table 3(4)]

(3) Additional work practice standards are applicable and shall be met should the boiler(s) be classified in a subcategory that requires compliance with pollutant emission limits. [40 CFR Part 63, Subpart DDDDD, Table 3(5 and 6)]

c. Notifications

(1) Madison shall submit a signed statement a Notification of Compliance Status (NOCS) report containing the results of the initial compliance demonstration according to the requirements in 40 CFR §63.7545(e). The NOCS shall indicate that the facility conducted an initial tune-up for Boilers 4, 6, and 7, and shall include a signed certification that the energy assessment was completed for each boiler according to 40 CFR Part 63, Subpart DDDDD, Table 3 and is an accurate depiction of the facility at the time of the assessment. [40 CFR §63.7530(d),(e), and (f) and §63.7545(e)]

(2) If operating as a 'unit designed to burn gas 1' subcategory, Madison must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. This notification must include the company name and address, identification of the affected unit the reason for not being able to use natural gas (or equivalent fuel), including the date when the natural gas curtailment was declared or the natural gas supply interruption began, the type of alternative fuel to be used, and the dates when the alternative fuel use is expected to begin and end. [40 CFR §63.7545(f)]

d. Reporting requirements shall be in accordance with the applicable requirements in Table 9 of 40 CFR Part 63, Subpart DDDDD and 40 CFR §63.7550.

e. Records

Madison shall maintain records in accordance with 40 CFR §63.7555 which contain information necessary to document compliance with all the applicable requirements, including but not limited to the following:

(1) A copy of each notification and report submitted to comply with Subpart DDDDD, including all documentation supporting any Initial Notification, Notification of Compliance Status or compliance report. [40 CFR §63.7555(a)(1)]
(2) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations. [40 CFR §63.7555(a)(2)]
(3) If a boiler(s) is subject to an emission limit in Tables 1, 2, or 11-13, the applicable records in 40 CFR 63.7555(d) must be kept.
(4) If a boiler(s) is in the 'unit designated to burn gas 1' subcategory, the total hours per calendar year that alternative fuel is burned and the total hours per calendar year the unit operated during periods of gas curtailment or gas supply emergencies. [40 CFR §63.7555(h)]
(5) The calendar date, time, occurrence and duration of each startup and shutdown. [40 CFR §63.7555(i)]
(6) The type(s) and amount(s) of fuels used during each startup and shutdown. [40 CFR §63.7555(j)]

M. Temporary Package Boiler

As part of a contingency plan, Madison has requested to license a 90 MMBtu/hour temporary package boiler firing distillate fuel. This Temporary Package Boiler will only be brought on-site in the event that one or more of the existing primary boilers (Boilers 4, 6, or 7) are unavailable. The boiler will have an operational limit of 1,008 hours (equivalent to 6 weeks).

Emissions from the Temporary Package Boiler shall exhaust to a stack which shall be above the building height of the controlling structure.

1. New Source Performance Standards (NSPS)

   Federal regulation 40 CFR Part 60, Subpart Dc, *Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units*, applies to each steam generating unit that commences construction, modification, or reconstruction after June 9, 1989, and which has a heat input capacity between 10 MMBtu/hour and 100 MMBtu/hour. Depending on the specific boiler brought on site the unit may be subject to the federal regulation. However, if the unit meets the definition of a "temporary boiler" according to 40 CFR §60.41c, the boiler may be exempt from 40 CFR Part 60, Subpart Dc [40 CFR §60.40c(i)]. If the boiler does not operate to meet the "temporary boiler" definition, the boiler shall comply with all applicable requirements.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   The Temporary Package Boiler is not subject to *NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters* contained in 40 CFR Part 63, Subpart DDDDD as long as it meets the definition of a "temporary boiler" according to §63.7575. [40 CFR §63.7491(j)] If the Temporary Package Boiler does not meet the definition of a "temporary boiler" per 40 CFR §63.7575, the boiler shall comply with all applicable requirements of the federal regulation.

3. Emission Limits and Streamlining

   Emission limits for the Temporary Package Boiler shown below are based on information for a Nebraska NOS-2-A/-S-64 model boiler rated at 90 MMBtu/hour. However, due to the nature of sudden unforeseen scenarios that would warrant the use of a temporary boiler, including availability and timing, Madison proposes to utilize a distillate fuel fired unit that has a capacity equal to or less than 90 MMBtu/hour. The make and model may vary from the one presented in this license. For the Temporary Package Boiler, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below.

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM	0.08 lb/MMBtu	06-096 CMR 103, Section (2)(B)(1)(b)	0.05 lb/MMBtu *
	0.05 lb/MMBtu	A-427-77-1-A, BACT (1/30/2008) and Manufacturer's Data	
	4.5 lb/hr		4.5 lb/hr

Pollutant	Applicable Emission Standards	Origin and Authority	Licensed Emission Limits
PM_{10}	0.05 lb/MMBtu	A-427-77-1-A, BACT (1/30/2008) and Manufacturer's Data	0.05 lb/MMBtu
	4.5 lb/hr		4.5 lb/hr
SO_2	2% S limit, by weight	06-096 CMR 106, §2.A.(2)	Distillate fuel, ASTM D396 compliant #2 fuel oil (0.5% S)
	Distillate fuel, ASTM D396 compliant (0.5% S)	06-096 CMR 140, BPT	
	0.005% S (50 ppm) distillate fuel beginning July 1, 2016 or the date specified in the statute	38 MRSA §603-A(2)(A)(3)	0.005% S (50 ppm) limit, distillate fuel beginning July 1, 2016
	0.0015% S (15 ppm) distillate fuel beginning Jan. 1, 2018 or the date specified in the statute	38 MRSA §603-A(2)(A)(3)	0.0015% S (15 ppm) limit, distillate fuel beginning Jan. 1, 2018
	45.3 lb/hr (based on 0.5% S limit, by weight)	A-427-77-1-A, BACT (1/30/2008)	45.3 lb/hr
NO_X	0.1 lb/MMBtu	A-427-77-1-A, BACT (1/30/2008) and Manufacturer's Data	0.1 lb/MMBtu
	9 lb/hr		9 lb/hr
CO	0.08 lb/MMBtu	A-427-77-1-A, BACT (1/30/2008) and Manufacturer's Data	0.08 lb/MMBtu
	7.2 lb/hr		7.2 lb/hr
VOC	0.004 lb/MMBtu	A-427-77-1-A, BACT (1/30/2008) and Manufacturer's Data	0.004 lb/MMBtu
	0.36 lb/hr		0.36 lb/hr
Visible Emissions	20% opacity on a six-minute block average basis, except for no more than one 6-minute block average in a 3-hour period	06-096 CMR 101, Section 2(B)(1)(b)	20% opacity on a six-minute block average basis, except for no more than one 6-minute block average in a 3-hour period

Table Notes: * streamlining requested
% S = percent fuel sulfur, by weight

4. Fuel

Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired in the Temporary Package Boiler shall be ASTM D396 compliant #2 fuel oil (maximum sulfur content of 0.5% by weight). Per 38 MRSA §603-A(2)(A)(3), beginning July 1, 2016, or on the date specified in the statute, the facility shall fire distillate fuel with a

maximum sulfur content limit of 0.005% by weight (50 ppm), and beginning January 1, 2018, or on the date specified in the statute, the facility shall fire distillate fuel with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The specific dates contained in this paragraph reflect the current dates in the statute as of the effective date of this license; however, if the statute is revised, the facility shall comply with the revised dates upon promulgation of the statute revision.

5. Emission Limit Compliance Methods

Compliance with the emission limits associated with the Temporary Package Boiler shall be demonstrated in accordance with the appropriate methods upon request of the Department.

6. Periodic Monitoring

Madison shall monitor and record parameters for the Temporary Package Boiler as indicated in the following table whenever the equipment is operating. Records shall also be maintained documenting the size, make and model of the Temporary Package Boiler, the on-site operating dates, and the off-line boiler(s) for which the unit is temporarily replacing the steam load.

Parameter	Units of Measure	Monitoring Tool/Method	Frequency
Distillate fuel use	Gallons	Recordkeeping	Daily, monthly, and 12-month rolling total
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Operating time	Hours	Recordkeeping	Daily, monthly, and calendar year

7. Parameter Monitors

There are no parameter monitors required for the Temporary Package Boiler.

8. CEMS and COMS

There are no required continuous emission monitoring systems (CEMS) or continuous opacity monitoring systems (COMS) required for the Temporary Package Boiler.

N. Groundwood Operations

Madison operates a Groundwood Mill as part of their facility. The Groundwood Mill produces pulp from logs using grinders, shredders, and other various associated equipment. Equipment included within the Groundwood Operations

are six (6) grinders, six (6) shredders, two (2) unscreened stock tanks, two (2) refiner vents, a heat recovery system and additional auxiliary equipment. The initial groundwood equipment was installed in 1981. Expansions and additional equipment were added to the Groundwood Mill in 1996 and 2005.

1. Description

The process begins as wood passes through the grinders, followed by the shredders. The grinders and shredders are enclosed to operate above atmospheric pressure at elevated temperatures. After the grinders and shredders, the stock, water, steam and resultant gases go into the unscreened stock tanks. The unscreened stock tanks periodically vent to the blow seal tank to prevent over pressurization. Groundwood from the unscreened stock tanks is screened and further processed into acceptable pulp for papermaking. Unvented gases from the unscreened stock tanks continue through a cyclone where fiber is recovered and returned to the process. Following the cyclone, the flash steam and gases go to a barometric condenser. The condenser both condenses organics utilizing fresh steam and water, and recovers heat from the exhaust gases. Materials which do not condense (i.e. excess flash steam) are vented to the atmosphere after passing through a secondary condenser.

The control on the Groundwood Operations consists of a heat recovery system. A regulated pollutant emitted during the Goundwood Operations is VOCs. VOC emissions such as methanol, terpenes, pinenes, etc. are released from groundwood operations.

2. National Emission Standards for Hazardous Air Pollutants (NESHSAPs)

Due the Groundwood Operations being a mechanical pulping process using wood, the facility is subject to 40 CFR Part 63, Subpart S. However, there are no applicable standards or emission requirements from the federal regulation for mechanical pulping processes.

3. VOC RACT

Madison conducted stack tests to quantify actual VOC emissions from these operations. The first stack tests were performed in 1994 as part of the facility's VOC RACT analysis and then again in 2005 for an expansion in the Groundwood Mill.

During the initial stack tests for VOC RACT in 1994, it was determined that VOC emissions from the Groundwood Operations were below 40 tons per year using the mass flow rates from the tests and the maximum facility production rate. Therefore the facility was not subject to VOC RACT because the total facility emissions were under the VOC RACT threshold of 40 tons per year due to the only other VOC emitting equipment at the facility being

the boilers and fire pumps, which are exempt from VOC RACT according to 06-096 CMR 134(1)(C)(4). [A-427-71-C-R, issued February 15, 1995]

A second set of stack tests were performed on the Groundwood Mill on February 17, 2005 to determine the actual VOC emissions after a fifth grinder had been added, as licensed in A-427-71-E-A (issued March 30, 1995), and for the then proposed addition of a sixth grinder (licensed in A-427-70-B-A, issued July 26, 2005). Using the VOC concentrations and flow rates determined by the stack tests, and the maximum achievable annual production, it was calculated that the VOC emissions from the groundwood process were 14.9 tons per year from the existing five grinders, and the proposed sixth would only add an additional 2.8 tons of VOC per year. It was again determined that the Groundwood Operations were below the VOC RACT facility emission threshold of 40 tons per year. [A-427-70-B-A, issued July 26, 2005]

BPT for the Groundwood Operations is utilizing the heat recovery system on the current equipment and recordkeeping to document that VOC emissions are below 39 tons per year on a 12-month rolling total basis.

O. Paper Machine #3

Madison operates one paper machine, designated Paper Machine #3. Paper Machine #3 was installed in 1981and produces supercalendered paper. The raw materials used in Paper Machine #3 include wood fiber and inorganic filler, as well as small quantities of defoamer, biocide, cleaning compounds, starch, sodium hydrosulfite (brightener), retention aids and dyes. All raw materials used in the paper machine are either solids, have no vapor pressure based on Safety Data Sheet (SDS) review, or the vapor pressure is less than 25 mmHg (millimeters of mercury), therefore resulting in minimal or zero levels of VOCs and HAPs.

1. National Emission Standards for Hazardous Air Pollutants (NESHAPs)

Paper Machine #3 is not subject to federal regulation 40 CFR Part 63, Subpart JJJJ, *National Emission Standards for Hazardous Air Pollutants: Paper and Other Web Coating*. Pursuant to a letter dated November 19, 2003, from the U.S. EPA to Timothy Hunt of the American Forest and Paper Association (AF&PA), both size presses and on-machine coaters that function as part of the in-line papermaking system used to form the paper substrate are not subject to the MACT [40 CFR Part 63] Subpart JJJJ requirements. Therefore, Subpart JJJJ does not apply to Paper Machine #3.

Paper Machine #3 is subject to 40 CFR Part 63, Subpart S, *National Emission Standards for Hazardous Air Pollutants from the Pulp and Paper Industry*. However, there are no applicable standards or emission requirements from the federal regulation for paper machines.

2. Paper Coating Regulation (06-096 CMR 123)

Paper Machine #3 is not subject to 06-096 CMR 123, *Control of Volatile Organic Compounds from Paper, Film and Foil Coating Regulation* because the regulation does not apply to size presses and on-machine coaters on paper machines that apply sizing or water-based clays. [06-096 CMR 123 (1)(C)(1)]

3. VOC RACT

Maine's VOC RACT rule, 06-096 CMR 134, exempts certain VOC-emitting equipment from the requirements contained therein. These listed exemptions include "paper machine area emissions which include paper machines and the finishing and converting areas." Therefore, Paper Machine #3 is exempt from the requirements of this rule. [06-096 CMR 134 (1)(C)(7)]

P. Precipitated Calcium Carbonate Plant

Madison has a contract with Specialty Minerals, Inc. (Specialty Minerals) under which Specialty Minerals constructed, owns and operates a precipitated calcium carbonate (PCC) plant on land leased from Madison Paper Industries. However, Madison is responsible for ensuring compliance with the air emission requirements applicable to the PCC plant as was licensed in A-427-71-I-M (issued September 17, 1997). The PCC plant was constructed in April of 1998 and consists of two (2) carbonators, tanks, and a lime silo.

Boilers 4, 6, and 7 at Madison emit carbon dioxide (CO_2), which is one of the raw materials used in the PCC manufacturing process. To supply CO_2 as a raw material, some of the exhaust gases from the boilers are routed through the PCC process, which then are exhausted out through a new separate flue added to the current boiler stack (Stack #1). The operations performed at the PCC plant causes no additional impact on the steam demand of Boilers 4, 6, and 7. When in operation, the PCC plant uses approximately 30% of the flue gas output of the three boilers.

1. Description

The raw materials for manufacturing PCC are lime (calcium oxide), CO_2, and water. Commercially available lime is supplied by bulk truck and/or rail and stored in a silo, the CO_2 flue gas is routed to the PCC plant by gas ducts from the boilers at Madison, and the water used is the process water from Madison's water system. During the PCC plant operations, the CO_2 flue gas enters a carbonation tank (carbonator) containing slaked lime. The slaked lime is obtained by mixing water and calcium oxide. After the PCC is produced in the carbonation tanks, the product slurry is wet screened to remove undesirable grit particles and transferred to storage tanks. The PCC slurry is then used as filler in the paper making operation.

Emission control on the PCC plant processes are two-stage demisters on the carbonators and a baghouse on the lime silo.

The two carbonators do not increase any emissions because all exhausts are those actually generated from Boilers 4, 6, and 7 at Madison. In addition to decreasing CO_2 emissions, SO_2 emissions may actually decrease due to reactions that may take place with the lime in the carbonators. BPT for the PCC plant carbonators is the operation and proper maintenance of the two-stage demisters and recordkeeping in a maintenance log.

Emissions from the lime silo are minimal except when it is being filled. During loading of the lime silo, particulate matter emissions are limited to 0.5 pounds per hour. BPT for the lime silo is meeting the PM limit during loading and the use of the baghouse.

Visible emissions from the lime silo baghouse shall not exceed 10% opacity on a 6-minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. Madison shall take corrective action if visible emissions from the baghouse exceed five (5) percent opacity. Corrective actions shall be recorded in the maintenance log. [06-096 CMR 101(2)(B)(3)(c)]

2. Periodic Monitoring

Periodic monitoring for the two-stage demisters on the carbonators and the lime silo baghouse shall each consist of recordkeeping in a maintenance log the date and location of all malfunctions, as well as routine maintenance. The log shall be kept at the Specialty Minerals plant.

Q. Fire Pumps

Madison operates two emergency fire pumps, designated the Boiler House Fire Pump and the Groundwood Mill Fire Pump. The emergency engines fire distillate fuel and are rated at 1.6 MMBtu/hr (215 HP power output) and 1.9 MMBtu/hr (255 HP power output), respectively. The engines were both manufactured and installed in 1981.

Previously, according to 06-096 CMR 140, Appendix B(B), the fire pumps were considered insignificant activities due to their sizes. However, since the issuance of the last license, 06-096 CMR 140 has been amended, including the elimination of the 3 MMBtu/hr licensing size threshold for stationary internal combustion engines (i.e. generators, fire pumps); thereby making the fire pumps significant activities and required to be addressed in this license.

1. Control Equipment

   There are no control equipment devices installed on either of the fire pumps at the facility.

2. NO_X RACT

   The emergency fire pumps are restricted to no more than 500 hours per year of operation each. Madison has accepted a license restriction on the hours of operation for each of the emergency fire pumps to maintain the NO_X emissions under 10 ton/year, thereby exempting the units from any requirements for NO_X emissions control as specified by 06-096 CMR 138. [06-096 CMR 138 (1)(B) and A-427-71-D-A (1/10/1996)]

3. New Source Performance Standards (NSPS)

   Due to the dates of installation, the emergency fire pumps are not subject to the federal regulation 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE)* which applies to emergency generator units ordered after July 11, 2005 and manufactured after April 1, 2006.

4. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

   The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is applicable to the Boiler House Fire Pump and the Groundwood Mill Fire Pump. The units are considered existing, emergency stationary reciprocating internal combustion engines at a major HAP source and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (*Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE*) does not specifically exempt these units from the federal requirements.

   a. Emergency Definition:

      Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the following criteria:

      (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. There is no

time limit on the use of emergency stationary ICE in emergency situations.

(2) Paragraph (1) above notwithstanding, the emergency stationary RICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:

(i) Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii)Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Paragraphs (1) and (2) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

The Boiler House Fire Pump and the Groundwood Mill Fire Pump shall be limited to the usage outlined in §63.6640(f) and therefore may be classified as an existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in §63.6640(f) may cause the engines to not be considered

emergency engines and therefore subject to all the requirements for non-emergency engines.

b. 40 CFR Part 63, Subpart ZZZZ Requirements:

(1) Operation and Maintenance Requirements

	Operating Limitations (40 CFR §63.6602 and Table 2c)
Compression ignition (distillate fuel) units: - Boiler House Fire Pump - Groundwood Mill Fire Pump	- Change oil and filter every 500 hours of operation or annually, whichever comes first; - Inspect the air cleaner every 1000 hours of operation or annually, whichever comes first, and replace as necessary; and - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

The fire pumps shall be operated and maintained according to the manufacturer's emission-related written instructions or Madison shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e) and 40 CFR Part 63, Subpart ZZZZ, Table 6]

(2) Optional Oil Analysis Program

Madison has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, Madison must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR§63.6625(i)]

(3) Non-Resettable Hour Meter Requirement

A non-resettable hour meter shall be installed and operated on each fire pump. [40 CFR §63.6625(f)]

(4) Startup Idle and Startup Time Minimization Requirements

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2c]

(5) Annual Time Limit For Maintenance and Testing

The fire pumps shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). [40 CFR §63.6640(f)]

(6) Recordkeeping

Madison shall keep records that include maintenance conducted on the fire pumps and the hours of operation of each fire pump recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the fire pumps are operated during a period of demand response or deviation from standard voltage or frequency, Madison shall keep records of the notification of the emergency situation, and the date, start time, and end time of the fire pump(s) operation for these purposes. [40 CFR §63.6655(e) and (f)]

(7) Requirements for Demand Response Availability Over 15 Hours/Year

If Madison operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program or during a period of deviation from standard voltage, the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

[40 CFR §63.6650(h) and 40 CFR Part 63, Subpart ZZZZ Table 7]

5. Emission Limits and Streamlining

For the Boiler House Fire Pump and the Groundwood Mill Fire Pump, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits can be found below. When the applicable emission standards are different for each fire pump, the Boiler House Fire Pump emission standard is designated with BH and the Groundwood Mill Fire Pump emission standard is designated with GM.

Pollutant	Emission Standards	Origin and Authority	Licensed Emission Limits
PM	BH: 0.19 lb/hr GM: 0.23 lb/hr	06-096 CMR 140, BPT	BH: 0.19 lb/hr GM: 0.23 lb/hr
PM_{10}	BH: 0.19 lb/hr GM: 0.23 lb/hr	06-096 CMR 140, BPT	BH: 0.19 lb/hr GM: 0.23 lb/hr
SO_2	0.01 lb/hr (based on 0.0015% S)	06-096 CMR 140, BPT	BH: 0.01 lb/hr GM: 0.01 lb/hr
NO_X	BH: 7.1 lb/hr GM: 8.5 lb/hr	AP-42 Table 3.3-1 dated 10/96 (4.41 lb/MMBtu) and 06-096 CMR 140, BPT	BH: 7.1 lb/hr GM: 8.5 lb/hr
CO	BH: 1.5 lb/hr GM: 1.8 lb/hr	AP-42 Table 3.3-1 dated 10/96 (0.95 lb/MMBtu) and 06-096 CMR 140, BPT	BH: 1.5 lb/hr GM: 1.8 lb/hr
VOC	BH: 0.6 lb/hr GM: 0.7 lb/hr	AP-42 Table 3.3-1 dated 10/96 (0.35 lb/MMBtu) and 06-096 CMR 140, BPT	BH: 0.6 lb/hr GM: 0.7 lb/hr
Visible Emissions	No greater than 20% opacity on a 6-min block avg, except for no more than two 6-min block avg in a 3-hr period	06-096 CMR 101, Section 2(B)(1)(d)	No greater than 20% opacity on a 6-min block avg, except for no more than two 6-min block avg in a 3-hr period

Table Notes: % S = percent fuel sulfur, by weight

6. Emission Limit Compliance Methods

Compliance with the emission limits associated with the fire pumps shall be demonstrated in accordance with the appropriate test methods upon request of the Department.

7. Periodic Monitoring

Madison shall monitor and record parameters for each fire pump as indicated in the following table.

Parameter	Units	Monitoring Tool/Method	Frequency
Distillate fuel sulfur content	Percent, by weight	Fuel purchase records from supplier	As fuel is purchased
Operating time	Hours	Hour Meter	Annually
Type of Operation (emergency, maintenance, etc.)	N/A	Logbook	As occurs

8. Parameter Monitors

There are no Parameter Monitors required for the fire pumps.

9. CEMS and COMS

There are no CEMS or COMS required for the fire pumps.

R. Parts Washers

The cold parts cleaners currently operated at Madison each have a designed capacity of approximately 15 gallons. The parts cleaners previously used a Safety Clean solvent that was subject to *Solvent Degreasers,* 06-096 CMR 130 (as amended). However, Madison has switched to a low VOC solvent, which upon dilution may contain less than or equal to 5% VOCs by weight.

Madison shall dilute the solvent in such a way that the VOC content will be equal to or less than 5% by weight to be exempt from 06-096 CMR 130 pursuant to 06-096 CMR 130(1)(B)(3). If the solution is not diluted as stated, the facility will be subject to 06-096 CMR 130 and shall comply with all applicable requirements.

Madison shall maintain records of the ratio of the amount of solvent used and the amount of water used to dilute the solvent for each application, thereby determining the percent VOC content by weight of that application in the parts cleaner.

S. Fuel Oil Tanks

Madison utilizes three oil storage tanks. The tanks are above-ground storage tanks with fixed roofs for No. 6 fuel oil, each with a nominal capacity of 50,000 gallons (189.3 m^3). The maximum true vapor pressure of the No. 6 fuel oil in each tank is less than 3.5 kilo pascals (kPa). Two of the tanks were installed in 1987 and the third tank was installed in 1990. Oil is delivered to the site by truck and loaded into the tanks, where it is then piped to Boilers 4, 6, and 7.

Madison shall maintain records of dimensions and capacity of each No. 6 fuel oil storage tank. [A-427-70-A-I, BPT, issued September 25, 2003]

1. Maine State Air Rule, 06-096 CMR 111

   Due to the maximum true vapor pressure of the No. 6 fuel oil in each tank being less than 3.5 kilo pascals (kPa), the tanks are not subject to 06-096 CMR 111, *Petroleum Liquid Storage Vapor Control* which applies to all fixed roof storage vessels with capacities greater than 39,000 gallons containing volatile petroleum liquids whose true vapor pressure is greater than 10.5 kPa.

2. New Source Performance Standards (NSPS)

   Due to their respective installation dates, the tanks are not subject to 40 CFR Part 60, Subpart K, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978* and 40 CFR Part 60, Subpart Ka, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984.*

   The No. 6 storage tanks are not subject to 40 CFR Part 60, Subpart Kb, *Standards of Performance for Volatile Orgnaic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984* because a tank having a capacity greater than 151 m^3 storing a liquid with a maximum true vapor pressure less than 3.5 kPa is specifically exempted from this Subpart, per 40 CFR Part 60, §60.110b(b). If the maximum true vapor pressure of the No. 6 oil within the tank(s) becomes greater than 3.5 kPa, Madison shall comply with all applicable requirements of 40 CFR Part 60, Subpart Kb. [40 CFR Part 60, §60.110b(b)]

T. Facility Annual Emissions

1. Total Annual Emissions

   Madison is licensed for the following annual emissions, based on a 12-month rolling total. The tons per year limits were calculated based on a maximum fuel cap of 1,650,000 MMBtu/year in Boilers 4, 6, and 7, an operational limit of 1,008 hours (equivalent to 6 weeks) for the Temporary Package Boiler, the BPT established annual limit from the Groundwood Operations, and an operational limit of 100 hours/year for each emergency fire pump:

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM_{10}	SO_2	NO_X	CO	VOC
Boilers (4, 6, and 7)	134.7	134.7	1276.0	371.3	98.2	7.5
Temporary Package Boiler	2.3	2.3	22.9	4.6	3.7	0.2
Groundwood Operations	-	-	-	-	-	39.0
Boiler House Fire Pump	0.1	0.1	0.1	0.4	0.1	0.1
Groundwood Mill Fire Pump	0.1	0.1	0.1	0.5	0.1	0.1
Total TPY	**137.2**	**137.2**	**1299.1**	**376.8**	**102.1**	**46.9**

Notes: The addition of the temporary package boiler emissions is worst-case scenario since the emissions will actually be offset by one or more of the three main boilers being off-line.

Emissions for Boilers 4, 6, and 7 while firing natural gas at the maximum fuel cap were all lower than licensed allowed emissions while firing No. 6 fuel oil at the same maximum fuel cap.

The worst-case scenario for Boilers 4, 6, and 7 for each pollutant was based on the 1,650,000 MMBtu/year fuel cap while firing No. 6 fuel oil (equivalent to 11,000,000 gallons/year oil) and the largest emission limit, calculated as follows:

PM - Boiler 4 at its max. oil usage, with the remainder fired in Boiler 6
PM_{10} - Boiler 4 at its max. oil usage, with the remainder fired in Boiler 6
SO_2 - The licensed tons per year limit
NO_X - Boilers 4 and 6 using the full fuel limit
CO - Boiler 7 at its max. oil usage, with the remainder fired in Boiler 4 or 6
VOC - Any combination of Boilers 4, 6, and 7 using the full fuel limit.

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents (CO_2e).

Based on the facility's fuel use limits, the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory*

Greenhouse Gas Reporting, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, Madison is above the major source threshold of 100,000 tons of CO_2e per year.

III. AMBIENT AIR QUALITY ANALYSIS

Madison previously submitted an ambient air quality analysis demonstrating that emissions from the facility, in conjunction with all other sources, do not violate ambient air quality standards (see license A-427-71-F-A, issued on March 7, 1996). An additional ambient air quality analysis is not required for this Part 70 License.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards; and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-427-70-C-R/A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and specific conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to Madison pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license, except for such conditions that the Department has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such, the conditions in this license supercede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 CMR 115 for making such changes and pursuant to the applicable requirements in 06-096 CMR 140.

For each standard and specific condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD STATEMENTS

(1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [06-096 CMR 140]

(2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [06-096 CMR 140]

(3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 CMR 140]

(4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license; [06-096 CMR 140]

(5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 140]

(6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:

A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or

B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.

Nothing in this section or any Part 70 license shall alter or affect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application dated February 18, 2008.

Source	Citation	Description	Basis for Determination
Facility	06-096 CMR 107	Sulfur Dioxide Emission Standards for Sulfite Pulp Mills	Facility is not a sulfite pulp mill.
Facility	06-096 CMR 111	Petroleum Liquid Storage Vapor Control	Fuel oil stored at the facility has a vapor pressure below threshold.
Boiler 4 & 6 O_2 systems	06-096 CMR 117	Source Surveillance – Emissions Monitoring	Used for operational purposes, not a specific monitor.
Paper Machine #3	06-096 CMR 123	Control of VOCs from Paper, Film and Foil Coating Operations	Facility does not do any coating.
Facility	06-096 CMR 124	Total Reduced Sulfur Control from Kraft Pulp Mills	Facility is not a kraft paper mill.
Facility	06-096 CMR 134	Reasonably Available Control Technology for Facilities That Emit VOCs	Groundwood Operations are limited to less than 40 TPY of VOCs. Emissions from other equipment (paper machines, boilers, generators) are exempt.
Boilers 4, 6, & 7	40 CFR 60, Subpart D	NSPS for Fossil-Fuel-Fired Steam Generators	Heat input capacity is less than the 250 MMBtu/hr applicability threshold.
Boilers 4, 6, & 7	40 CFR 60, Subpart Da	NSPS for Electric Utility Steam Generating Units	Boilers do not meet the definition of an electric utility.
Boilers 4 & 6	40 CFR 60, Subpart Db	NSPS for Industrial-Commercial-Institutional Steam Generating Units	Commenced construction prior to June 19, 1984 applicability date.
Boilers 4, 6, & 7	40 CFR 60, Subpart Dc	NSPS for Small Industrial-Commercial-Institutional Steam Generating Units	Boilers 4 and 7 are greater than the 100 MMBtu/hr applicability threshold. Boilers 4 and 6 commenced construction prior to June 9, 1989 applicability date.

Source	Citation	Description	Basis for Determination
No. 6 oil storage tanks	40 CFR 60, Subpart Kb	NSPS for Volatile Organic Liquid Storage Vessels	Max. true vapor pressure less than applicable threshold for the storage tank capacity.
Facility	40 CFR 60, Subpart BB	NSPS for Kraft Pulp Mills	Facility is not a kraft paper mill.
Fire Pumps	40 CFR 60, Subpart IIII	NSPS for Stationary Ignition Internal Combustion Engines	Manufactured prior to the April 1, 2006 applicability date.
Facility	40 CFR 63, Subpart MM	NESHAP for Chemical Recovery at Pulp Mills	Facility is not a kraft, soda, sulfite or semichemical pulp mill.
Paper Machine #3	40 CFR 63, Subpart JJJJ	NESHAP for HAPs from Paper and Other Web Coating	Facility does not do any coating.
Boilers 4, 6, & 7	40 CFR Parts 72-78	EPA Acid Rain Program	Facility is not an electric utility unit.

[06-096 CMR 140]

(7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:

A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 CMR 140;

B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or

D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 CMR 140]

(8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 CMR 140]

STANDARD CONDITIONS

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140. [06-096 CMR 140]

(3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 140]
Enforceable by State-only

(4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353-A.

(5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 140]
Enforceable by State-only

(6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or in accordance with other provisions of this license. [06-096 CMR 140]

(7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department,

the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 CMR 140]

(8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing under circumstances representative of the facility's normal process and operating conditions:

1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;

2. to demonstrate compliance with the applicable emission standards; or

3. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 140]

Enforceable by State-only

(9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 140]

Enforceable by State-only

(10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.

A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;

B. The licensee shall submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.

Pursuant to 38 M.R.S.A. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 CMR 140]

(11) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 140]

(12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 CMR 140]

(13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:

A. The identification of each term or condition of the Part 70 license that is the basis of the certification;
B. The compliance status;
C. Whether compliance was continuous or intermittent;
D. The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
E. Such other facts as the Department may require to determine the compliance status of the source.

[06-096 CMR 140]

SPECIFIC CONDITIONS

(14) Facility-Wide Fuel Specifications

A. No. 6 Fuel Oil

The following fuel sulfur content requirements are applicable to those units without specific No. 6 fuel oil sulfur content limits as stated in the Order of this license.

1. Prior to January 1, 2018, or by the date otherwise stated in 38 MRSA §603-A(1) and (2), the sulfur content of the No. 6 fuel oil fired at Madison shall not exceed 2.0% by weight. [06-096 CMR 106]

2. Beginning January 1, 2018, or by the date otherwise stated in 38 MRSA §603-A(1) and (2), the No. 6 fuel oil fired at the facility shall not exceed a maximum sulfur content limit of 0.5% by weight. [38 MRSA §603-A(1) and (2)]

B. Distillate Fuel

The following fuel sulfur content requirements are applicable to those units without specific distillate fuel sulfur content limits as stated in the Findings of Fact and Order of this license.

1. Prior to July 1, 2016, or by the date otherwise stated in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired at Madison shall be ASTM D396 compliant No. 2 fuel oil (maximum sulfur content of 0.5% by weight). [06-096 CMR 140, BPT]

2. Beginning July 1, 2016, or on the date specified in 38 MRSA §603-A(2)(A)(3), the distillate fuel fired at the facility shall not exceed a maximum sulfur content limit of 0.005% by weight (50 ppm) [38 MRSA §603-A(2)(A)(3)].

3. Beginning January 1, 2018, or on the date specified in 38 MRSA §603-A(2)(A)(3), distillate fuel fired at the facility shall not exceed a maximum sulfur content limit of 0.0015% by weight (15 ppm). [38 MRSA §603-A(2)(A)(3)]

C. Fuel Sulfur Content Compliance

Fuel sulfur content compliance shall be demonstrated by fuel oil analysis of the bulk fuel oil storage tanks if the fuel is blended on-site, or by fuel purchase records demonstrating that the maximum sulfur content delivered is at or below the applicable sulfur content limits listed above. [06-096 CMR 140, BPT]

(15) **Fuel Use Limits for Boilers 4, 6, and 7**

A. Madison shall restrict total fuel use in Boilers 4, 6, and 7 to no more than 1,650,000 MMBtu/year based on a 12-month rolling total basis. [A-427-77-5-A, BACT (April 1, 2014)]

B. Annual SO_2 Emission Restriction

1. Prior to January 1, 2018, Madison shall restrict the annual SO_2 emissions in Boilers 4, 6, and 7 to less than 1,276 tons per year. The following equation shall be used to calculate annual SO_2 emissions on a 12-month rolling total basis:

$$\frac{\left(\frac{157\ lb}{1000\ gal}\right)(\mathrm{x}\ \%S)\left(\frac{\mathrm{X}\ gal}{yr}\ No.6\ oil\right)}{\frac{2000\ lb}{ton}} + \frac{\left(\frac{142\ lb}{1000\ gal}\right)(\mathrm{y}\ \%S)\left(\frac{\mathrm{Y}\ gal}{yr}\ No.2\ oil\right)}{\frac{2000\ lb}{ton}} + \frac{\left(\frac{0.6\ lb}{MMscf}\right)\left(\frac{\mathrm{Z}\ MMscf}{yr}\ NG\right)}{\frac{2000\ lb}{ton}}$$

$$\leq 1276\ TPY$$

Where:

x = the weighted average percent (%) sulfur content of the No. 6 fuel oil fired in the previous 12 months
X = the gallons of No. 6 fuel oil fired in the previous 12 months
y = the weighted average percent (%) sulfur content of the distillate fuel fired in the previous 12 months
Y = the gallons of distillate fuel fired in the previous 12 months
Z = the millions of standard cubic feet (MMscf) of natural gas fired in the previous 12 months

2. Beginning January 1, 2018, or by the date otherwise stated in 38 MRSA §603-A(1) and (2), once Madison is required to fire No. 6 fuel oil that does not exceed a maximum sulfur content limit of 0.5% by weight in all three boilers, the above Special Condition (15)(B)(1) is void.

[A-427-70-A-I (September 25, 2003) and 06-096 CMR 140, BPT]

C. Madison may burn specification waste oil in Boilers 4 and 6 provided that the license fuel cap, annual sulfur emission limit, and pollutants emission limits are not exceeded. Specification waste oil shall not be burned in Boiler 7. A log shall be maintained recording the quantity of all specification waste oil fired in the boilers. The log shall contain a copy of an analysis performed on a representative sample of on-site generated specification waste oil. If off-site generated specification waste oil is used, the log shall contain copies of the analyses performed on each batch of off-site generated specification waste oil as well as the quantity of specification waste oil fired. The combustion of hazardous waste and the dilution of hazardous waste with non-hazardous products for combustion purposes is prohibited. [A-427-70-A-I (September 25, 2003) and 06-096 CMR 140, BPT]

D. Madison shall maintain records of annual fuel use indicating the type of fuel, the quantity of fuel consumed (gallons or scf), and the percent (%) sulfur content of the fuel by weight, if applicable, demonstrated by purchase records form the supplier. The fuel usages shall also be converted to a heat input MMBtu/yr using the respective fuels specific heating value. The MMBtu/yr values are used to demonstrate compliance with the facility's fuel limits. [06-096 CMR 140, BPT]

(16) **Steam Production Limits for Boilers 4, 6, and 7**

The following shall apply only when No. 6 fuel is fired in any of the boilers:

A. Combined steam output from Boilers 4 and 6 shall not exceed 152,000 lbs of steam per hour, based on a daily average, while Boiler 7 is in operation.

B. Combined steam output from Boilers 4 and 6 shall not exceed 176,000 lbs of steam per hour, based on a daily average, during Boiler 7 inactivity, startups, or shutdowns.

C. Madison shall record hourly steam flows in lbs of steam per hour for each boiler at all times of operation. A summary of steam flow data shall be included in the quarterly reports. **(Enforceable by State-only)**

[A-427-70-A-I (September 25, 2003) and 06-096 CMR 140, BPT]

(17) **Boiler 4**

A. Allowable Fuels

1. Boiler 4 is licensed to fire natural gas, No. 6 fuel oil, distillate fuel, and specification waste oil (as defined by the Bureau of Remediation and Waste Management). [A-427-77-2-A (9/1/2011), 06-096 CMR 140, BPT and 06-096 CMR 860]
2. Madison shall maintain records of the type and quantity of fuel consumed and the percent sulfur content of the fuel by weight, if applicable, on a monthly and 12-month rolling total basis. [06-096 CMR 140, BPT]

B. Control Equipment

Madison shall operate low NO_X burners for the control of NO_X emissions from Boiler 4. [06-096 CMR 138 addressed in A-427-71-D-A (1/11/1996)]

C. Boiler 4 Emission Limits

1. Emissions from Boiler 4 shall not exceed the following limits:

Pollutant	lb/MMBtu	Fuel	Origin and Authority
PM	0.2	Fuel Oil	06-096 CMR 103(2)(A)(1)
	0.05	Natural Gas	A-427-77-5-A (4/1/14), BACT
NO_X	0.4	Fuel Oil	06-096 CMR 138, NO_X RACT and 06-096 CMR 140, BPT
	0.2	Natural Gas	A-427-77-4-A (1/24/12), BACT

Pollutant	lb/hr	Fuel	Origin and Authority
PM	23.8	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	6.24	Natural Gas	A-427-77-5-A (4/1/14), BACT
PM_{10} *	23.8	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	6.24	Natural Gas	A-427-77-5-A (4/1/14), BACT
SO_2	249/62.5 **	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	0.07	Natural Gas	A-427-77-2-A (9/1/11), BACT
NO_X	47.6	Fuel Oil	06-096 CMR 140, BPT
	24.96	Natural Gas	A-427-77-4-A (1/24/12), BACT
CO	4.2	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	10.28	Natural Gas	A-427-77-2-A (9/1/11), BACT
VOC	1.1	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	0.67	Natural Gas	A-427-77-2-A (9/1/11), BACT

Table Notes: * Only includes filterable PM_{10} in accordance with test methods 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A

** Prior to January 1, 2018, Boiler 4 shall be limited to 249 lb/hr while firing No. 6 fuel oil with a sulfur content not to exceed 2% by weight. Beginning January 1, 2018, Boiler 4 shall not fire No. 6 fuel oil with a sulfur content exceeding 0.5% by weight and Madison shall be limited to 62.5 lb/hr of SO_2.

2. Visible Emissions
   (a) Visible emissions from Boiler 4 when firing fuel oil shall not exceed 30% opacity on a six (6) minute block average basis, except no more than two (2) six minute block averages in a 3-hour block period.
   (b) Visible emissions from Boiler 4 when firing natural gas shall not exceed 10% opacity on a six (6) minute block average basis, except no more than one (1) six minute block average in a 3-hour block period.

   [06-096 CMR 101]

D. Compliance Methods

Compliance with the emission limits listed above shall be demonstrated in accordance with the following methods and frequencies, or other methods and frequencies as approved by the Department [06-096 CMR 140]:

Pollutant	Units	Compliance Method	Frequency
PM	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 5	Within 12 months of when the fuel oil combustion rate is 30% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period*
PM_{10}	lb/hr	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 CFR Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 7	Within 12 months of when the fuel oil combustion rate is 25% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period
CO	lb/hr	40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 CFR Part 60, App. A, Method 25 or 25A	As requested

Table Note: * The PM stack testing is not required to be performed more frequently than every 5 years per 38 M.R.S.A. §589, Sub-

section 2 and may extend beyond the 5 year timeframe depending on the fuels fired.

E. Periodic Monitoring

Periodic monitoring for Boiler 4 is indicated in the following table whenever the equipment is operating. [06-096 CMR 140, BPT]

Parameter	Units	Monitoring Tool/Method	Frequency
No. 6 fuel oil used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Natural gas used	MMscf	Recordkeeping	Monthly, and 12-month rolling total
Distillate fuel used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Waste oil used	Gallons	Estimation of amount collected and burned	Monthly, and 12-month rolling total
No. 6 fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Waste oil sulfur content	Percent, by weight	Analysis on a representative sample	As necessary to obtain a representative sample
O_2 level	%	O_2 monitor	Once per shift

Table Notes: The above fuel usages required to be recorded shall then be converted to a heat input MMBtu/yr value using the respective fuels specific heating value. The heat input values in MMBtu/yr are then used to comply with the facilities fuel cap and for determining if NO_X testing is required.

F. Parameter Monitors

Parameter monitoring for Boiler 4 shall consist of the following. [06-096 CMR 140, BPT]

Parameter	Units	Monitoring Tool/Method *	Frequency	
			Monitor	Record
Steam flow	lb steam/hr	Steam flow meter	Continuously**	Once per shift
		Amp meter with a continuous chart recorder		

Table Notes: * The steam flow can be recorded with either monitoring method

** Continuously shall mean ongoing while the equipment is operating

G. Continuous Opacity Monitoring System (COMS)

Madison shall operate and maintain the following COMS for Boiler 4 [06-096 CMR 140, BPT]:

COMS	Units	Averaging Period	Origin and Authority
Opacity COMS	%	6-minute block averages	06-096 CMR 117

(18) **Boiler 6**

A. Allowable Fuels

1. Boiler 6 is licensed to fire natural gas, No. 6 fuel oil, distillate fuel, and specification waste oil (as defined by the Bureau of Remediation and Waste Management). [A-427-77-5-A (4/02/2014), 06-096 CMR 140, BPT and 06-096 CMR 860]
2. Madison shall maintain records of the type and quantity of fuel consumed and the percent sulfur content of the fuel by weight, if applicable, on a monthly and 12-month rolling total basis. [06-096 CMR 140, BPT]

B. Control Equipment

Madison shall operate low NO_X burners for the control of NO_X emissions from Boiler 6. [06-096 CMR 138 addressed in A-427-71-D-A, (1/11/1996)]

C. Boiler 6 Emission Limits

1. Emissions from Boiler 6 shall not exceed the following limits:

Pollutant	lb/MMBtu	Fuel	Origin and Authority
PM	0.2	Fuel Oil	06-096 CMR 103(2)(A)(1)
	0.05	Natural Gas	A-427-77-5-A (4/1/14), BACT
NO_X	0.4	Fuel Oil	06-096 CMR 138, NO_X RACT and 06-096 CMR 140, BPT
	0.2	Natural Gas	A-427-77-5-A (4/1/14), BACT

Pollutant	lb/hr	Fuel	Origin and Authority
PM	10.0	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	4.98	Natural Gas	A-427-77-5-A (4/1/14), BACT
PM_{10}*	10.0	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	4.98	Natural Gas	A-427-77-5-A (4/1/14), BACT

Pollutant	lb/hr	Fuel	Origin and Authority
SO_2	209/52.3 **	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	0.06	Natural Gas	A-427-77-5-A (4/1/14), BACT
NO_X	39.84	Fuel Oil	06-096 CMR 140, BPT
	19.92	Natural Gas	A-427-77-5-A (4/1/14), BACT
CO	3.5	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	8.20	Natural Gas	A-427-77-5-A (4/1/14), BACT
VOC	0.9	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	0.54	Natural Gas	A-427-77-5-A (4/1/14), BACT

Table Notes: * Only includes filterable PM_{10} in accordance with test methods 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A

** Prior to January 1, 2018, Boiler 6 shall be limited to 209 lb/hr while firing No. 6 fuel oil with a sulfur content not to exceed 2% by weight. Beginning January 1, 2018, Boiler 6 shall not fire No. 6 fuel oil with a sulfur content exceeding 0.5% by weight and Madison shall be limited to 52.3 lb/hr of SO_2.

2. Visible Emissions
   (a) Visible emissions from Stack #1 (serving Boilers 4, 6, and 7) when one or more boilers are firing fuel oil shall not exceed 30% opacity on a six (6) minute block average basis, except no more than two (2) six minute block averages in a 3-hour block period.
   (b) Visible emissions from Stack #1 (serving Boilers 4, 6, and 7) when all the boilers are firing natural gas shall not exceed 10% opacity on a six (6) minute block average basis, except no more than one (1) six minute block average in a 3-hour block period.

   [06-096 CMR 101]

D. Compliance Methods

Compliance with the emission limits listed above shall be demonstrated in accordance with the following methods and frequencies, or other methods and frequencies as approved by the Department [06-096 CMR 140]:

Pollutant	Units	Compliance Method	Frequency
PM	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 5	Within 180 days of when the No. 6 fuel oil combustion rate is 30% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period. *

Pollutant	Units	Compliance Method	Frequency
PM_{10}	lb/hr	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 CFR Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 7	Within 12 months of when the fuel oil combustion rate is 25% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period
CO	lb/hr	40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 CFR Part 60, App. A, Method 25 or 25A	As requested

Table Note: * The PM stack testing is not required to be performed more frequently than every 2 years per BPT and may extend beyond the 2 year timeframe depending on the fuels fired.

E. Periodic Monitoring

Periodic monitoring for Boiler 6 is indicated in the following table whenever the equipment is operating. [06-096 CMR 140, BPT]

Parameter	Units	Monitoring Tool/Method	Frequency
No. 6 fuel oil used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Natural gas used	MMscf	Recordkeeping	Monthly, and 12-month rolling total
Distillate fuel used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Waste oil used	Gallons	Estimation of amount collected and burned	Monthly, and 12-month rolling total
No. 6 fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Waste oil sulfur content	Percent, by weight	Analysis on a representative sample	As necessary to obtain a representative sample
O_2 level	%	O_2 monitor	Once per shift

Table Notes: The above fuel usages required to be recorded shall then be converted to a heat input MMBtu/yr value using the respective

fuels specific heating value. The heat input values in MMBtu/yr are then used to comply with the facilities fuel cap and for determining if NO_X testing is required.

F. Parameter Monitors

Parameter monitoring for Boiler 6 shall consist of the following. [06-096 CMR 140, BPT]

Parameter	Units	Monitoring Tool/Method *	Frequency	
			Monitor	Record
Steam flow	lb steam/hr	Steam flow meter	Continuously**	Once per shift
		Amp meter with a continuous chart recorder		

Table Notes: * The steam flow can be recorded with either monitoring method
** Continuously shall mean ongoing while the equipment is operating

(19) **Boiler 7**

A. Allowable Fuels

1. Boiler 7 is licensed to fire natural gas, No. 6 fuel oil, and distillate fuel. [A-427-77-2-A (9/1/2011) and 06-096 CMR 140, BPT]
2. The sulfur content of the No. 6 fuel oil fired in Boiler 7 shall not exceed 0.5% by weight. [40 CFR Part 60, Subpart Db, §60.42b(j)]
3. Madison shall maintain records of the type and quantity of fuel consumed and the percent sulfur content of the fuel by weight, if applicable, on a monthly and 12-month rolling total basis. [06-096 CMR 140, BPT]

B. Control Equipment

Madison shall operate low NO_X burners and flue gas recirculation (FGR) for the control of NO_X emissions from Boiler 7. [06-096 CMR 138 addressed in A-427-71-D-A, (1/11/1996)]

C. Boiler 7 Emission Limits

1. Emissions from Boiler 7 shall not exceed the following limits:

Pollutant	lb/MMBtu	Averaging Period	Fuel	Origin and Authority
PM	0.08	-	Fuel Oil	06-096 CMR 103(2)(B)(1)(b)
	0.05	-	Nat. Gas	A-427-77-5-A (4/1/14), BACT
NO_X	0.4	24-hr daily block & 30-day rolling	Fuel Oil	06-096 CMR 138 & 40 CFR Part 60, Subpart Db
	0.2	30-day rolling	Nat. Gas	A-427-77-4-A (1/24/12), BACT

Pollutant	lb/hr	Fuel	Origin and Authority
PM	9.4	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	6.14	Natural Gas	A-427-77-5-A (4/1/14), BACT
PM_{10} *	9.4	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	6.14	Natural Gas	A-427-77-5-A (4/1/14), BACT
SO_2	61.23	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	0.07	Natural Gas	A-427-77-2-A (9/1/11), BACT
NO_X	46.8	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	24.54	Natural Gas	A-427-77-4-A (1/24/12), BACT
CO	19.9	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	10.1	Natural Gas	A-427-77-2-A (9/1/11), BACT
VOC	1.1	Fuel Oil	A-427-70-A-I (9/25/03), BPT
	0.66	Natural Gas	A-427-77-2-A (9/1/11), BACT

Table Notes: * Only includes filterable PM_{10} in accordance with test methods 40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A

2. Visible Emissions
   (a) Visible emissions from Boiler 7 when firing fuel oil shall not exceed 20% opacity on a six (6) minute block average basis, except no more than one (1) six minute block average per hour of not more than 27% opacity. [40 CFR Part 60, Subpart Db, §63.43b(f)]
   (b) Visible emissions from Boiler 7 when firing natural gas shall not exceed 10% opacity on a six (6) minute block average basis, except no more than one (1) six minute block average in a 3-hour block period. [06-096 CMR 101]

D. Compliance Methods

Compliance with the emission limits listed above shall be demonstrated in accordance with the following methods and frequencies, or other methods and frequencies as approved by the Department [06-096 CMR 140]:

Pollutant	Units	Compliance Method	Frequency
PM	lb/MMBtu and lb/hr	40 CFR Part 60, App. A, Method 5	Within 12 months of when the fuel oil combustion rate is 30% or more of the boiler's annual heat input from all fuels in any 12 month rolling total period *

Pollutant	Units	Compliance Method	Frequency
PM_{10}	lb/hr	40 CFR Part 60, App. A, Method 5 or EPA Test Method 201 or 201A	As requested
SO_2	lb/hr	40 CFR Part 60, App. A, Method 6	As requested
NO_X	lb/MMBtu and lb/hr	NO_X CEMS	Continuously
CO	lb/hr	40 CFR Part 60, App. A, Method 10	As requested
VOC	lb/hr	40 CFR Part 60, App. A, Method 25 or 25A	As requested

Table Note: * The PM stack testing is not required to be performed more frequently than every 5 years per 38 M.R.S.A. §589, Sub-section 2 and may extend beyond the 5 year timeframe depending on the fuels fired.

E. Periodic Monitoring

Periodic monitoring for Boiler 7 is indicated in the following table whenever the equipment is operating. [06-096 CMR 140, BPT]

Parameter	Units	Monitoring Tool/Method	Frequency
No. 6 fuel oil used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
Natural gas used	MMscf	Recordkeeping	Monthly, and 12-month rolling total
Distillate fuel used	Gallons	Recordkeeping	Monthly, and 12-month rolling total
No. 6 fuel oil sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
No. 6 fuel oil annual capacity factor	-	Ratio calculation *	Monthly and calendar year
Natural gas annual capacity factor	-	Ratio calculation *	Monthly and calendar year
Distillate fuel annual capacity factor	-	Ratio calculation *	Monthly and calendar year

Table Notes: The above fuel usages required to be recorded shall then be converted to a heat input MMBtu/yr value using the respective

fuels specific heating value. The heat input values in MMBtu/yr are then used to comply with the facilities fuel cap.

* The *annual capacity factor* means the ratio between the actual heat input to the steam generating unit from the respective fuel during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours on that fuel during a calendar year at the maximum steady state design heat input capacity. [40 CFR Part 60, §60.41b]

F. Parameter Monitors

Parameter monitoring for Boiler 7 shall consist of the following. The parameters may be recorded with either monitoring tool/method as indicated in the table. [06-096 CMR 140, BPT]

Parameter	Units	Monitoring Tool/Method	Frequency	
			Monitor	Record
Steam flow [1]	lb steam/hr	Steam flow meter Amp meter with a continuous chart recorder	Continuously [2]	Once per shift
Flue Gas Recirculation	scf/hr	Gas flow monitor [3]	Once per shift	

Table Notes:

[1] The steam flow can be recorded by either the steam flow meter or ampmeter monitoring method.

[2] Continuously shall mean ongoing while the equipment is operating.

[3] If there is a malfunction of the gas flow monitor, an ampmeter with a continuous chart recorder may be used on the flue gas recirculation system fan until the flow monitor is repaired or replaced.

G. Continuous Monitoring System

Madison shall operate and maintain the following CEMS and COMS for Boiler 7 [06-096 CMR 140, BPT]:

COMS	Units	Averaging Period	Origin and Authority
NO_X CEMS	lb/MMBtu	24-hour daily block arithmetic average and 30-day rolling average *	40 CFR Part 60, Subpart Db (§60.48b(b)(1)), 06-096 CMR 117 and 06-096 CMR 138
O_2 (or CO_2) CEMS	%	30-day rolling average	40 CFR Part 60, Subpart Db (§60.48b(b)(1)) and 06-096 CMR 117
Opacity COMS	%	6-minute block averages	06-096 CMR 117

* The 30-day rolling average shall be calculated and updated in 24-hour blocks in which a 24-hour block constitutes one calendar day. The 24-hour block average shall be calculated as one calendar day, midnight to midnight. [A-427-70-A-I (September 25, 2003)]

H. NSPS 40 CFR Part 60, Subpart Db

Madison shall comply with all applicable requirements in 40 CFR Part 60, Subpart Db.

(20) **NESHAP 40 CFR Part 63, Subpart DDDDD for Boilers 4, 6, and 7**

A. Madison must comply with the applicable requirements of 40 CFR Part 63, Subpart DDDDD no later than January 31, 2016 as applicable to Boilers 4, 6, and 7. [40 CFR §63.7495(b)] Note that if the status of the Final Rule (Boiler MACT Final Rule of January 31, 2013) should change, the compliance date may also change.

B. Emission Limits and Operating Limits [40 CFR Part 63, Subpart DDDDD, Tables 1, 2, 4, 7, 8]

At the specified date stablished in 40 CFR §63.7495, Madison shall comply with the emission limits for specific pollutants contained in the Subpart DDDDD, if applicable.

C. Work Practice Standards [40 CFR Part 63, Subpart DDDDD, Table 3]

1. Madison shall conduct an initial tune-up of Boilers 4, 6, and 7 according to the procedures specified in §63.7540(a)(10)(i) through (vi) no later than the initial tune-up due date established per 40 CFR §63.7495.

2. Subsequent tune-ups for each boiler must be conducted every 5 years as specified in §63.7540(a)(10)(i) through (vi) to demonstrate continuous compliance. Delay of the burner inspection specified in 40 CFR §63.7540(a)(10)(i) until the next scheduled or unscheduled unit shutdown is permitted; however, an inspection of each burner must occur at least once every 72 months. [40 CFR §63.7540(a)(12)]

3. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up. [40 CFR §63.7515(d)]

4. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR §63.7540(a)(13)]

5. A one-time energy assessment must be performed on Boilers 4, 6, and 7 by a qualified energy assessor as specified in 40 CFR Part 63, Subpart

DDDDD, Table 3(4). [40 CFR Part 63, Subpart DDDDD, Table 3(4)] The energy assessment shall be performed no later than the compliance date specified in 40 CFR §63.7495.

6. Additional work practice standards are applicable and shall be met should the boiler(s) be classified in a subcategory that requires compliance with pollutant emission limits. [40 CFR Part 63, Subpart DDDDD, Table 3(5 and 6)]

D. Notifications

1. Madison shall submit a signed statement a Notification of Compliance Status (NOCS) report containing the results of the initial compliance demonstration according to the requirements in 40 CFR §63.7545(e). The NOCS shall indicate that the facility conducted an initial tune-up for Boilers 4, 6, and 7, and shall include a signed certification that the energy assessment was completed for each boiler according to 40 CFR Part 63, Subpart DDDDD, Table 3 and is an accurate depiction of the facility at the time of the assessment. [40 CFR §63.7530(d),(e), and (f) and §63.7545(e)]

2. If operating as a 'unit designed to burn gas 1' category, Madison must submit a notification of alternative fuel use within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. This notification must include the company name and address, identification of the affected unit the reason for not being able to use natural gas (or equivalent fuel), including the date when the natural gas curtailment was declared or the natural gas supply interruption began, the type of alternative fuel to be used, and the dates when the alternative fuel use is expected to begin and end. [40 CFR §63.7545(f)]

E. Reporting requirements shall be in accordance with the applicable requirements in Table 9 of 40 CFR Part 63, Subpart DDDDD and 40 CFR §63.7550.

F. Records

Madison shall maintain records in accordance with 40 CFR §63.7555 which contain information necessary to document compliance with all the applicable requirements, including but not limited to the following:

1. A copy of each notification and report submitted to comply with Subpart DDDDD, including all documentation supporting any Initial Notification, Notification of Compliance Status or compliance report. [40 CFR §63.7555(a)(1)]
2. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations. [40 CFR §63.7555(a)(2)]
3. If a boiler(s) is subject to an emission limit in Tables 1, 2, or 11-13, the applicable records in 40 CFR 63.7555(d) must be maintained.

4. If a boiler(s) is in the 'unit designated to burn gas 1' subcategory, the total hours per calendar year that alternative fuel is burned and the total hours per calendar year the unit operated during periods of gas curtailment or gas supply emergencies. [40 CFR §63.7555(h)]
5. The calendar date, time, occurrence and duration of each startup and shutdown. [40 CFR §63.7555(i)]
6. The type(s) and amount(s) of fuels used during each startup and shutdown. [40 CFR §63.7555(j)]

(21) **Startup and Shutdown Opacity for Boilers 4, 6, and 7**

For Boilers 4, 6, and 7, opacity in excess of the limits set forth in this license during the first four hours, starting with the first exceedance during the initiation of cold startup or planned shutdown are exempt, provided that operating records are available to demonstrate that the facility was being operated to minimize emissions. Madison shall have the burden of proving that any excess emissions were not caused entirely, or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition. [06-096 CMR 101, (3)(A) and 06-096 CMR 140, BPT]

(22) **Temporary Package Boiler**

A. Madison may utilize a Temporary Package Boiler when one or more of the existing three boilers (Boilers 4, 6, or 7) are unavailable. [A-427-77-1-A (January 30, 2008), BACT]

B. The Temporary Package Boiler shall not exceed a maximum capacity rating of 90 MMBtu/hour and shall not be operated for more than 1,008 hours (equating to 6 weeks) in any calendar year. [A-427-77-1-A (January 30, 2008), BACT]

C. Records shall be maintained documenting the size, make and model of the Temporary Package Boiler, the on-site operating dates, and the off-line boiler(s) for which the unit is temporarily replacing the steam load. [A-427-77-1-A (January 30, 2008), BACT]

D. Allowable Fuels
   1. The Temporary Package Boiler is licensed to fire distillate fuel which meets the criteria in ASTM D396 for #2 fuel oil (max. sulfur content of 0.5% by weight).
   2. Compliance shall be demonstrated by fuel records from the supplier showing the type, quantity, and the percent sulfur of the fuel delivered.

   [A-427-77-1-A (January 30, 2008), BACT]

E. Emissions from the Temporary Package Boiler shall not exceed the following:

Pollutant	lb/MMBtu	lb/hr	Origin and Authority
PM	0.05	4.5	A-427-77-1-A (1/30/08), BACT
PM_{10}	0.05	4.5	A-427-77-1-A (1/30/08), BACT
SO_2	-	45.3	A-427-77-1-A (1/30/08), BACT
NO_X	0.1	9.0	A-427-77-1-A (1/30/08), BACT
CO	0.08	7.2	A-427-77-1-A (1/30/08), BACT
VOC	0.004	0.36	A-427-77-1-A (1/30/08), BACT

F. Visible emissions from the Temporary Package Boiler shall not exceed 20% opacity on a six (6) minute block average basis, except no more than one (1) six minute block average in a 3-hour block period. [06-096 CMR 101]

G. Periodic Monitoring

Periodic monitoring for the Temporary Package Boiler is indicated in the following table whenever the equipment is operating. [06-096 CMR 140, BPT]

Parameter	Units	Monitoring Tool/Method	Frequency
Distillate fuel used	Gallons	Recordkeeping	Daily, monthly, and 12-month rolling total
Distillate fuel sulfur content	Percent, by weight	Fuel receipts from supplier	As fuel is purchased
Operating time	Hours	Recordkeeping	Daily, monthly, and calendar year

H. The stack for the Temporary Package Boiler shall be greater than the building height of the controlling structure as defined by GEP (Good Engineering Practice) modeling guidance. [A-427-77-1-A (January 30, 2008) and 06-096 CMR 115, BACT]

I. Federal Regulations

1. If the Temporary Package Boiler is subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, Madison shall meet all applicable requirements in 40 CFR Part 60, Subpart Dc.

2. If the Temporary Package Boiler is subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) 40 CFR Part 63, Subpart DDDDD, Madison shall meet all applicable requirements in 40 CFR Part 63, Subpart DDDDD.

[06-096 CMR 140, BPT]

(23) **Groundwood Operations**

A. Madison shall utilize the heat recovery system maintained on the six pressurized grinders.

B. Madison shall maintain records to document that VOC emissions are below 39 tons per year based on a 12-month rolling total.

Enforceable by State-only [A-427-70-A-I (September 25, 2003), A-427-70-B-A (July 26, 2005), and 06-096 CMR 140, BPT]

(24) **Precipitated Calcium Carbonate (PCC) Plant**

A. Lime Silo
1. Particulate matter (PM) emissions from the lime silo shall be limited to 0.5 lb/hr.

[A-427-70-A-I (9/25/2003), BPT]

B. Carbonators
1. Emissions from the carbonators shall exhaust through demisters and then through a separate flue at the existing stack (Stack #1).
2. The PM emissions from the PCC plant flue, in combination with PM emissions from the boilers, shall not exceed the existing lb/hour limits applicable to the boilers.
3. If the Department requests additional emission testing on the boiler gases after they pass through the PCC plant carbonators, a determination will have to be made at the time of the protocol review on the boiler and PCC plant operation, including what portion of the flue gas will be going through the PCC plant, what portion will be going up the existing stack, and how the relative amounts of pollutants in each portion of the flue gas streams will be determined.
4. In order to document maintenance of the two-staged demisters, a maintenance log recording the date and location of all malfunctions, as well as routine maintenance, shall be kept on site.

Enforceable by State-only [A-427-70-A-I (9/25/2003), BPT]

(25) **Fire Pumps**

A. Allowable Operation and Fuels
1. The Boiler House Fire Pump and Groundwood Mill Fire Pump are licensed to fire distillate fuel. [06-096 CMR 140, BPT]
2. The fire pumps are each limited to 100 hours per year total operation, based on a 12-month rolling total, excluding operating hours during emergency situations. [06-096 CMR 140, BPT]

B. Fuel Sulfur Content

1. The distillate fuel sulfur content for the Boiler House Fire Pump and Groundwood Mill Fire Pump shall be limited to 0.0015% sulfur. [06-096 CMR 140, BPT]
2. Fuel sulfur content compliance shall be demonstrated by fuel delivery receipts from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 140, BPT]

C. Emissions shall not exceed the following limits [06-096 CMR 140, BPT]:

Units	PM (lb/hr)	PM_{10} (lb/hr)	SO_2 (lb/hr)	NO_X (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Boiler House Fire Pump	0.19	0.19	0.01	7.07	1.52	0.56
Groundwood Mill Fire Pump	0.23	0.23	0.01	8.46	1.82	0.67

D. Visible emissions from each of the fire pumps shall not exceed 20% opacity on a 6-minute block average, except for no more than two (2) six (6) minute block averages in a 3-hour period. [06-096 CMR 101]

E. The Boiler House and Groundwood Mill Fire Pumps shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

1. Madison shall meet the following operational limitations for each of the compression ignition emergency fire pumps (Boiler House Fire Pump and Groundwood Mill Fire Pump):

   a. Change the oil and filter annually,
   b. Inspect the air cleaner annually, and
   c. Inspect the hoses and belts annually and replace as necessary.

   A log shall be maintained documenting compliance with the operational limitations.

   [40 CFR §63.6602 and Table 2(c); and 06-096 CMR 115]

2. Oil Analysis Program Option

   Madison has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, Madison must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR§63.6625(i)]

3. Non-Resettable Hour Meter

   A non-resettable hour meter shall be installed and operated on each fire pump. [40 CFR §63.6625(f)]

4. Maintenance, Testing, and Non-Emergency Operating Situations

   a. The fire pumps shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity). These limits are based on a calendar year. Compliance shall be demonstrated by a written log of all fire pump operating hours. [40 CFR §63.6640(f)(1)-(3) and 06-096 CMR 115]

   b. Madison shall keep records that include maintenance conducted on the fire pumps and the hours of operation of each engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the fire pumps are operated during a period of emergency demand response or deviation from standard voltage or frequency, Madison must keep records of the notification of the emergency situation, and the date, start time, and end time of fire pump operation for these purposes. [40 CFR §63.6655(e) and (f)]

5. Operation and Maintenance

   The fire pumps shall be operated and maintained according to the manufacturer's emission-related written instructions, or Madison shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

6. Startup Idle and Startup Time Minimization

   During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

7. Requirements for Demand Response Availability Over 15 Hours Per Year (and greater than 100 brake hp)

If Madison operates or is contractually obligated to be available for more than 15 hours per calendar year in an emergency demand response program or during a period of deviation from standard voltage or frequency, the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100 (OES04-2)
Boston, MA 02109-3912
Attn: Air Compliance Clerk

[40 CFR §63.6650(h)]

(26) **Parts Washers**

A. Madison shall keep records of the ratio of the amount of solvent used and the amount of water used to dilute the solvent, for each application to each parts washer. [06-096 CMR 140, BPT]

B. Using the ratio of solvent to water, Madison shall compute and record the corresponding percent VOC content by weight, for each application to each applicable parts washer. [06-096 CMR 140, BPT]

C. Should the VOC content exceed 5% by weight, the applicable part washer(s) will be subject to and shall comply with the operational and record keeping requirements of 06-096 CMR 130 (as amended) which include, but are not limited to, the following:

1. Madison shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 115, BPT]
2. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
   a. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
   b. Wipe cleaning; and,
   c. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.

3. The following standards apply to cold cleaning machines that are applicable sources under 06-096 CMR 130.
   a. Madison shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
      (i) Waste solvent shall be collected and stored in closed containers.
      (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
      (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
      (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
      (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
      (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
      (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material used to clean spills shall then be immediately stored in covered containers.
      (viii) Work area fans shall not blow across the opening of the degreaser unit.
      (ix) The solvent level shall not exceed the fill line.
   b. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

(27) **Fuel Oil Tanks**

Madison shall maintain records of dimensions and capacity of each No. 6 fuel oil storage tank. [A-427-70-A-I, BPT (9/25/2003)]

(28) **Insignificant Combustion Sources**

Madison shall keep a log to record the fuel type and sulfur content, by weight, for each insignificant combustion source. [A-427-70-A-I, BPT (9/25/2003)]

(29) **Fugitive Emissions**

Visible emissions from a fugitive emission source (including stockpiles and roadways) shall not exceed an opacity of 20 percent, except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an

aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour. [06-096 CMR 101]

(30) **General Process Sources**

Visible emissions from any general process source shall not exceed an opacity of 20% on a six (6) minute block average basis, except for no more than one (1) six (6) minute block average in a 1-hour period. [06-096 CMR 101]

(31) **Malfunction, Failure, Downtime Notification**

Madison shall maintain all records of malfunctions, failures, downtimes, and any other changes in operation for all CEMS, COMS, and all equipment parameter monitors required by this Order. If the malfunction, failure, or downtime period of the CEMS, COMS, or equipment parameter monitor is greater than six hours, Madison shall notify the Bureau of Air Quality within two working days (48 hours) of any such malfunction, failure, or downtime. Within 5 working days, the licensee shall submit a written report describing the cause, duration, remedial action, and steps to be taken to prevent reoccurrence of such malfunction, failure, or downtime. [06-096 CMR 140, BPT] **(Enforceable by State-only)**

(32) **Parameter Monitor General Requirements** [06-096 CMR 140 and 117]

A. Parameter monitors required by this license shall be installed, operated, maintained, and calibrated in accordance with manufacturer recommendations or as otherwise required by the Department.

B. Parameter monitors required by this license shall continuously monitor data at all times the associated emissions unit is in operation. "Continuously" with respect to the operation of parameter monitors required by this license means providing equally spaced data points with at least one valid data point in each successive 15-minute period. A minimum of three valid 15-minute periods constitute a valid hour.

C. Each parameter monitor must record accurate and reliable data. If the parameter monitor is recording accurate and reliable data less than 98% of the associated emissions unit operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.

Enforceable by State-only

(33) **CEMS/COMS Recordkeeping**

A. Madison shall maintain records documenting that all CEMS and COMS are continuously accurate, reliable and operated in accordance with 38 M.R.S.A. Section 589(3), 06-096 CMR 117 (as amended), 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F;

B. Madison shall maintain records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS and COMS as required by 40 CFR Part 51 Appendix P; and

C. Madison shall maintain records of other data indicative of compliance with the applicable emission standards for those periods when the CEMS or COMS were not in operation or produced invalid data. In the event the Department does not concur with the licensee's compliance determination, the licensee shall, upon the Department's request, provide additional data, and shall have the burden of demonstrating that the data is indicative of compliance with the applicable standard.
[06-096 CMR 140]

Enforceable by State-only

(34) **Quarterly Reporting**

Madison shall submit a Quarterly Report to the Bureau of Air Quality within 30 days after the end of each calendar quarter, detailing the following, for the control equipment, parameter monitors, CEMS, and COMS required by this license. The facility's designated responsible official must sign this report. [06-096 CMR 117]

A. All control equipment downtimes and malfunctions;
B. All CEMS or COMS downtimes and malfunctions;
C. All parameter monitor downtimes and malfunctions;
D. All excess events of emission and operational limitations set by this Order, Statute, state or federal regulations, as appropriate. The following information shall be reported for each excess event;
    1. Standard exceeded;
    2. Date, time, and duration of excess event;
    3. Amount of air contaminant emitted in excess of the applicable emission standard expressed in the units of the standard;
    4. A description of what caused the excess event;
    5. The strategy employed to minimize the excess event; and
    6. The strategy employed to prevent reoccurrence.
E. A report certifying there were no excess emissions, if that is the case.

(35) **Semiannual Reporting** [06-096 CMR 140]

A. Madison shall submit to the Bureau of Air Quality semiannual reports which are due on **January 31st** and **July 31st** of each year. The facility's designated responsible official must sign this report.

B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date.

C. Each semiannual report shall include a summary of the periodic monitoring required by this license.

D. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

(36) **Annual Compliance Certification**

Madison shall submit an annual compliance certification to the Department and EPA Region 1 in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31 of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the Department within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [06-096 CMR 140]

(37) **Annual Emission Statement**

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department, in a format prescribed by the Department, the information necessary to accurately update the State's emission inventory. The emission statement shall be submitted as specified by the date in 06-096 CMR 137.

(38) **General Applicable State Regulations**

The licensee is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	Enforceability
06-096 CMR 102	Open Burning	-
06-096 CMR 109	Emergency Episode Regulation	-
06-096 CMR 110	Ambient Air Quality Standard	-
06-096 CMR 116	Prohibited Dispersion Techniques	-
38 M.R.S.A. §585-B, §§5	Mercury Emission Limit	Enforceable by State-only

(39) **Units Containing Ozone Depleting Substances**

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. Examples of such units include refrigerators and any size air conditioners that contain CFCs. [40 CFR, Part 82, Subpart F]

(40) **Asbestos Abatement**

When undertaking Asbestos abatement activities, Madison shall comply with 40 CFR Part 61, Subpart M, *Standard for Asbestos Demolition and Renovation.*

(41) **Expiration of a Part 70 license**

A. Madison shall submit a complete Part 70 renewal application at least 6 months prior, but no more than 18 months prior, to the expiration of this air license.

B. Pursuant to Title 5 MRSA §10002, and 06-096 CMR 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70 license. An existing source submitting a complete renewal application under 06-096 CMR 140 prior to the expiration of the Part 70 license will not be in violation of operating without a Part 70 license. **Enforceable by State-only**

(42) **New Source Review**

Madison is subject to all previous New Source Review (NSR) requirements summarized in this Part 70 air emissions license and the NSR requirements remain in effect even if this 06-096 CMR 140 Air Emissions License, A-427-70-C-R/A, expires.

DONE AND DATED IN AUGUSTA, MAINE THIS 6 DAY OF May , 2015.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

[Note: If a complete renewal application as determined by the Department, is submitted at least 6 months prior to expiration but no earlier than 18 months, then pursuant to Title 5 MRSA §10002, all terms and conditions of the Part 70 license shall remain in effect until the Department takes final action on the renewal of the Part 70 license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: February 27, 2008
Date of application acceptance: March 4, 2008

Date filed with the Board of Environmental Protection:

This Order prepared by Allison M. Hazard and Kathleen E. Tarbuck, Bureau of Air Quality.

Filed
MAY 07 2015
State of Maine
Board of Environmental Protection